

The National Future Farmer

Owned and Published by the Future Farmers of America



This issue mailed to over 275,000 Future Farmer Homes

February-March, 1960



To do any job well, a man must be equipped
to meet the routine and the unexpected.
Bob Jones University training will equip you
to face the challenge and meet successfully
the emergencies of these confused times.

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and eighth grades in connection.*



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Claude Hughes (right) of Scott City, Kansas, and his son Harold represent two generations of Firestone users.

Farmers you look to as leaders look to Firestone for farm tires

Prosperous homestead farms dot the rich grainland regions of western Kansas. That's where the Hughes operation is located, and it's one of the oldest and best known in Scott County.

Claude Hughes was born on the farm his father homesteaded back in 1888. Together he and his father instituted irrigation and land control methods that make the farm one of the most productive in the area. And today, Claude's six sons are helping him carry on in the Hughes' tradition of constructive land management.

And Ed Claycomb, Firestone Dealer in Scott City, works hand in hand with the Hughes family. As Claude puts it: "Ed gives us service whenever we need it—even at night. And the Firestone tires he sells us suit our operation perfectly. They're the only tires I can mount and forget about downtime."

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Firestone

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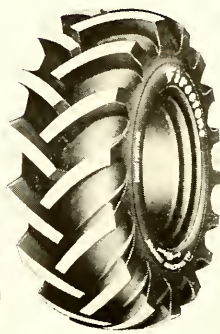
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The National Future Farmer

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The National FUTURE FARMER

BIG NEWS FROM NEW HOLLAND FOR 1960



The New Holland Super Hayliner 69, "50" Bale-Thrower and "776" Crop-Drying Wagon—"tops" with today's farm youth!

FARM YOUTH OF TODAY: NOW IT'S "Hay-in-a-Day"..the One-Man Way!

WITH AMERICA'S MOST ADVANCED BALER!

Out of 19 years of engineering leadership comes the 1960 Hayliner. And with it, an exciting new concept—quality haymaking by *one man in one day*—to save time, labor, money.

...with New Holland's new Bale-Thrower!

For 1960, New Holland's tested, proved Bale-Thrower makes possible *one-man* bale loading! "Airlifts" bales from Hayliner to wagon! Models to fit all Hayliners and the self-propelled Haycruiser.

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For 1960, Flow-Action is on *all* New Holland Hayliners! Exclusive telescoping feeder bar with

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Your Editors Say...



AS NATIONAL FFA WEEK approaches, and with it Washington's birthday, we couldn't help but pause and reflect back on the changes that have come about in farming since Washington's time. Many of the things we take for granted weren't even thought of in his day. And yet, he was one of the most progressive farmers of his era. Electric power and the fuel oils have largely replaced muscle power. Machinery, fertilizers, insecticides, better varieties and livestock breeding, along with better management practices, have enabled less than 10 percent of the Nation's population to feed the remainder and pile up surpluses unequaled in the history of mankind. Even the Russians admit that we excel them in agriculture.

Agriculture has not enjoyed this parade of progress alone, however. Just look at the changes that have come about in all walks of life since you were born. To do this, let's go back 22 years—to the year 1938 when the Westinghouse time capsule was placed 50 feet down into the earth in a field outside New York City. This capsule is to lie buried until the year 6938. Its contents were carefully selected to give future generations a record of what our civilization was like in the year 1938. It contains over ten million words giving an up-to-the-minute story of where our civilization stood in that year.

But there is no mention in that capsule of television, jet planes, the Salk polio vaccine, the United Nations, the atom bomb or nuclear powered submarines, radar, our 49th and 50th states, aureomycin and terramycin, hi-fi and stereo, World War II, and the Korean conflict. All of these, and many more, have come about during your lifetime.

It staggers the imagination to think about what lies ahead, particularly for the farmer. We've touched on the subject in this issue. "In Your Future" on page 31 was prepared after several machinery companies agreed to let us peek into their crystal ball. Another look ahead, though not as far into the future, is "Farming in '60" on page 29. It describes the year ahead, as seen by a panel of experts attending the recent Agricultural Outlook Conference in Washington, D. C.

Other articles intended to help you update your farming plans are "Strides in Insecticides," and "Farm Business Agreements." We believe, too, you will particularly enjoy the articles about Future Farmers in this issue. A reading must is an on-the-farm visit with Regional Star Farmer Rodney Caulk by Associate Editor Joe Boyd on page 34.

How do you celebrate National FFA Week? We would like to know. Details on how your idea may earn \$5.00 for your chapter are given on page 18.

Wilson Carnes

Editor

The National FUTURE FARMER

Youth's well-planned future leads to farm

A well-planned future, based upon boyhood experience on a progressive farm, is a splendid foundation for the successful "Farmer of Tomorrow." Such planning forecasts pleasant and prosperous years for Darwin Oehlerich, of Keystone, Iowa.

Darwin grew up where farming is a business, an art and a science. He began working on youth projects early, earning three Grand Championships with his Hereford Cattle in five-county competition. In addition, his awards include a Reserve Grand Championship, a Championship, a Reserve Championship, sixteen First-Place Ribbons and three Second-Place Ribbons, including one from the Iowa State Fair.

At Wartburg College, where he is a sophomore and on varsity squads in baseball and basketball, Darwin is studying mathematics and physical culture. He plans to teach and coach for a while, but finally return to the farm.

Purina congratulates Darwin Oehlerich on his past success and on his bright future as a "Farmer of Tomorrow."

* * * *

All Darwin Oehlerich's prize-winning cattle were fed Purina Chows.

Near you is a Purina Dealer anxious to help you with your feeding and management problems, whether you are raising livestock or poultry for show or for market.



Livestock and athletics both figure in the past and future of Darwin Oehlerich.

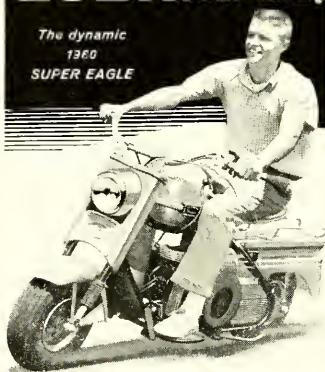


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fit YOUR OWN
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DEMPSTER MILL MFG. CO.
Beatrice, Nebraska

Looking Ahead

WANTED—MORE FOOD!

Ever wonder why so much time and money is spent on agricultural research? Why improve crops and livestock production when there are already giant surpluses? Here's some reasons: 1) Surpluses of only a few commodities exist. 2) Research points to more efficient production methods for all commodities, which benefit the consumer as well as the farmer. 3) Farm production must increase by 35 to 45 percent to feed 1975's expected population of 230,000,000. By 2010, only 50 years in the future, there will be around 370,000,000 people in America—more than twice the present population.

NEWS FOR WHEAT GROWERS

Sowing wheat late in the fall to avoid Hessian Fly damage may be a thing of the past. A chemical called Thimet makes plants themselves poisonous to insects. In Missouri tests, yields were increased nine to 30 bushels an acre when wheat was seeded up to a month early with Thimet treatment. Cost is still relatively high—about \$3.50 per acre. Thimet can either be mixed with fertilizer or applied directly to the soil just before seeding.

SPRING PASTURES LOWER FEED COSTS

Most dairymen can save on early spring feed costs by lowering the protein content of their rations, says G. A. William of Purdue University. On a dry matter basis, early grass may be as high in protein as is bran. Grass is high in moisture and is laxative. It stimulates milk flow, but due to a low nutrient content, may lead to loss of body weight. Home-grown grains are richer in energy-producing nutrients than protein-rich feeds such as bran and linseed oil meal. Each pound of grain should produce noticeably more milk than under winter feeding practices. Later in the season when grasses and legumes approach the seed bearing stage and protein content declines, add a protein supplement to the grain mix. Don't forget to provide plenty of salt and minerals for the herd when turned on pasture.

1960 CONSERVATION RESERVE

The 1960 Conservation Reserve includes some 28 million acres of cropland. This is a voluntary production adjustment program under which farmers sign contracts to withdraw cropland from production for a period of years. They must devote it to grass, trees, or conservation of water or wildlife. Under these contracts, the government agrees to share costs of establishing conservation practices and to make annual rental payments on the land for the contract period.

SOWING UNCERTIFIED SEED—RISKY BUSINESS

One risk taken by far too many farmers is the use of questionable seed in the drill hopper. An Illinois survey of 1124 seed oat samples showed that some germinated only 60 percent and one only 19 percent! More than 10 percent of farmers using seed from their own or a neighbor's bin couldn't have sold it under Illinois state seed laws because of noxious weed seeds present. A similar survey of seed wheat showed that six percent of the samples germinated below 80 percent. Some were as low as 30 percent. Only 12 percent of the farmers used certified seed. Think twice before sowing uncertified seed this year. The extra cost of certified seed will pay big returns.

DEMAND FOR AG COLLEGE GRADS

Some 40 percent of all US jobs are in agriculture, say USDA officials. Of 65 million workers, 25 million are in the ag field! Seven million farm; seven million produce for and service farmers; and 11 million process and distribute farm products. Nearly 15,000 jobs for college grads with ag backgrounds and training open up each year. Land grant colleges are graduating only 7,000 a year!

OLD AIRPLANE PART USED IN FARM-MADE LAND LEVELLER!

Willard Cyrus, farmer of Sisters, Oregon, needed a land leveller for terracing. In constructing it, he utilized angle iron, old truck wheels and a hydraulic cylinder from a discarded airplane wing.

It operates on Texaco Regal Oil R&O. Mr. Cyrus (right) gets all his Texaco products from Don Wells, driver for Texaco Consignee B. A. Litehiser. This

progressive farmer, like farmers everywhere, has found that it pays to power and lubricate his farm machinery with Texaco products.

Mr. Cyrus is mighty resourceful when it comes to solving problems. He also welded a handy winch on his tractor, and used the differential of an old car. It operates off the power take-off.



Bearings bear up better with Marfak

H. Lee Cherry farms 450 acres near Washington, North Carolina. He raises tobacco, soy beans, grain, cattle and pigs. Here (on tractor) he stops for a neighborly talk with Texaco Distributor H. G. Winfield, who supplies Lee with Texaco products for his farm equipment. This time he has made a delivery of Texaco Marfak. Lee prefers Marfak lubricant, because experience proved that it best cushions bearings against the brutal beating they take in field work. Marfak forms a tough collar around open bearings, sealing out dirt and mois-

ture. Marfak won't drip out, wash out, dry out or cake up. Mr. Cherry is another of the countless farmers all over the country who have found that it *pays to farm with Texaco products.*



BUY THE BEST...BUY TEXACO

TUNE IN: METROPOLITAN OPERA, SAT. AFTERNOONS, CBS-RADIO; TEXACO HUNTLEY-BRINKLEY REPORT, MON. THROUGH FRI., NBC-TV

Young Farmers

BOOKSHELF

Using Electricity on the Farm (Prentice Hall; Price \$5.00 to teachers, others \$6.65)—How'd you like to wire your home or farm buildings for electricity? Do you know safety precautions, necessary tools, or just how much you should try alone? Most of the answers are in this book, plus

pointers on electric motor care, good lighting, and selection of practically any piece of electrical farm equipment. Excellent for do-it-yourselfers!

Arco 1960 Income Tax Guide (Arco Publishing Co., 480 Lexington Ave., New York City; Price \$1.00)—A good handbook for the average taxpayer. Discusses interest, dividends, sales of property, and medical deductions. Special section on farm problems. Covers partnership situations, dependent care, plus a round-up of general money-saving tax tips.

If your local bookstore doesn't have these selections, write direct to the publishers. Say you saw it in *The National FUTURE FARMER*.

Kiplinger's Family Buying Guide (Prentice Hall, 70 5th Ave., New York City 11; Price \$4.95)—Tells you how to live better on your income. Following the advice of this book could increase your purchasing power by 10 percent. Information on autos, insurance, gasoline, and dozens of other everyday items. Easy-to-follow tips on saving, spending, and borrowing. You'll want to read it over and over.

How To Avoid Financial Tangles (American Institute for Economic Research, Great Barrington, Mass.; Price \$1.00)—Should be on every family's bookshelf. A treasure of practical advice and guidance in all sorts of money matters. Sections on wills, contracts, inheritance, gifts, income tax, real estate, banks, and other factors affecting the pocketbook.

Youth at the Wheel (Chas. Bennett Inc., 237 N. Monroe, Peoria 3, Ill.; Price \$3.60)—One of the best books for young adults we've seen. It's filled with the colorful history of American automobile progress. Excellent photos and an easy-reading style add luster. Hints on better driving with helpful tests to determine your weak spots. A simple explanation of what makes your car tick and some of the most important laws regarding its use. Highly recommended!



on the newest HARLEY-DAVIDSON wheels

Pick a route to good times! Whether you're "scooter-minded" or partial to lightweights, Harley-Davidson has come up with new fun-wheels for you. Thrifty, nifty — they're the ideal transportation for work, school or play.

NEW TOPPER SCOOTER — If you want to travel by scooter, Harley-Davidson presents the *Topper*. Here's scootering at its best — one that tops all others in performance and beauty. It almost drives itself — thanks to automatic *Scootaway* transmission and low and forward center of gravity.

NEW SUPER-10 LIGHTWEIGHT—This Twin-Flare, two-tone slimsister is the answer to your prayers. Easy driving with hand clutch, foot shift. Easy riding with Tele-Glide front fork and foam-rubber filled

saddle. Safety-equipped with new larger head and tail lights, new electric horn. Alternating current generator electrical system.

Best of all, it's so easy and economical to own a *Topper* or *Super-10*. Average up to 100 miles per gallon... both can be purchased through easy-pay-plans that fit your pocketbook. Drop in at your Harley-Davidson dealer today and get full details on America's newest fun-wheels. Or mail the coupon for free colorful folders.

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Future Farmer



OUR COVER STORY

DELAWARE Future Farmers were first to fly the FFA flag over their state's capitol during National FFA Week. They will repeat the colorful ceremony during 1960's February 20-27 event.

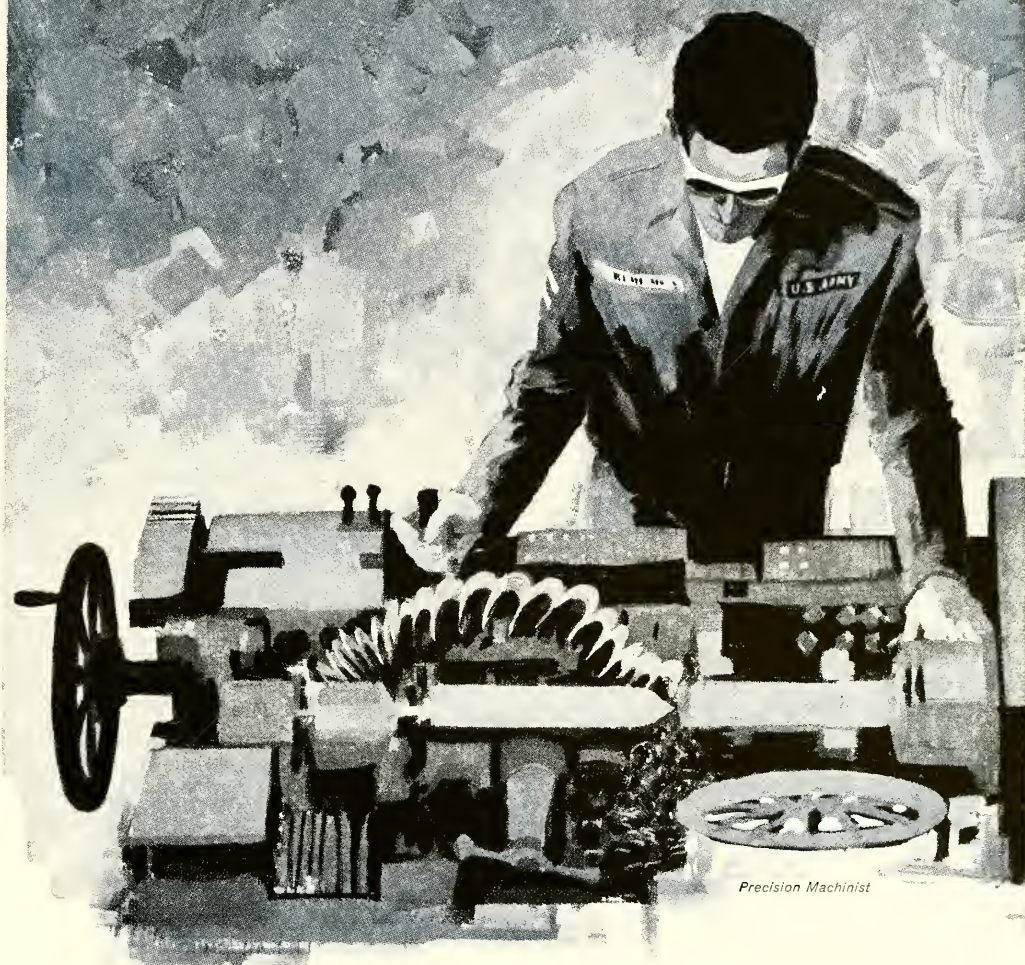
Our cover's flag-raising scene shows Governor J. Caleb Boggs and State FFA President Carl Vincent, running up the FFA standard with Delaware's official streamer.

From left to right is Delaware FFA Advisor, W. Lyle Mowlds, FFA Executive Secretary, Paul M. Hodgson; State President, Carl Vincent; and Governor Boggs.

Delaware State Poultry Winner, Wayne Currey; Regional Star Farmer, Rodney Caulk; former Star FFA Dairy Farmer, Wallace Caulk, Jr.; and State Corn King, Wayne Hickman.

Does your state have an unusual project for FFA Week? Why not let us hear about it!

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Booklets and Leaflets

ANIMAL FEEDS

☐ **AF 3023** *Aureomycin® for Sheep Feeding.* How to get maximum gains, better feed conversion, reduced disease with AUREOMYCIN chlortetracycline in creep feeds, range supplements and feed lot rations.

☐ **AF 3024** *Aureomycin for Thrifty Gains.* Describes Cyanamid's over-all program for beef cattle feeding—how low-cost gains are obtained with AUREOMYCIN in creep feeds, range cubes and feed lot rations.

☐ **AF 3040** *How Aureomycin in Feed Pays You.* Describes in fast, factual statements how feeds containing AUREOMYCIN for poultry, hogs, dairy and beef cattle and sheep pay extra returns in increased production and weight gains.

☐ **AF 3043** *More Eggs to Sell.* How AUREOMYCIN in layer feeds keeps hens healthy, stops losses from blue comb and CRD, helps hen lay more eggs over a longer period.

☐ **AF 3041** *How to Raise Pigs at Less Cost.* How the right amount of AUREOMYCIN in feeds at every stage of life helps hogs stay healthy and put on low-cost gains!

☐ **AF 3035** *For Healthier Cows and Calves.* Why it pays to feed AUREOMYCIN in dairy rations to help prevent foot rot, bacterial diarrhea and shipping fever complex—help cows stay in good health needed for maximum milk production.

ANIMAL HEALTH

☐ **VE-7055R** *Aureomycin Crumbles Booklet*—21-Page booklet features testimonials from dairymen, beef cattle, sheep and swine raisers. Contains detailed instructions for using AUREOMYCIN Crumbles in each animal category.

☐ **VE-7013** *Aureomycin Oblets® Folder*—Describes specific use of the 500 mg. AUREOMYCIN tablets in all animal and poultry categories. Diseases and dosages fully covered.

☐ **VE-7094** *Aureomycin General Folder*—Describes the use of various AUREOMYCIN products for the prevention and treatment of diseases that attack poultry, swine, cattle and sheep. Contains dosage and timing data.

☐ **VE-8828** *Duovax® for Erysipelas Fact Sheet*—Describes erysipelas in hogs and turkeys and outlines control measures using DUOVAX.

☐ **VE-8824** *Aureomycin Soluble for Poultry Fact Sheet*—Blueprints for setting up gravity water medicating units at low cost in broiler and layer houses and how to use AUREOMYCIN SOLUBLE in drinking water.

☐ **VE-8820** *Aureomycin Soluble Swine Fact Sheet*—Describes use of AUREOMYCIN SOLUBLE in hog disease control programs.

☐ **VE-8833** *Rovac® Hog Cholera Fact Sheet*—Describes hog cholera and its control with ROVAC. Includes directions for conditioning pigs for vaccination.

☐ **VE-7043** *Sulmet® Poultry Folder*—Describes the use of SULMET in feed and in drinking water to prevent and treat the four major poultry diseases—coccidiosis, coryza, acute fowl cholera and pullorum disease. Chart shows the life cycle of coccidia and gives a complete schedule and program for using SULMET.

☐ **VE-7048R** *Sulmet All Animals Folder*—All uses of SULMET with all farm animals (no poultry). Covers dosage, indication for use and test data on blood levels.

☐ **VE-8802** *Aureomycin First Aid Spray Fact Sheet*—Describes the use of new AUREOMYCIN Aerosol spray in the emergency treatment of superficial wounds.

☐ **VE-8801** *Vet Fax, Dairy Cows*—Outlines the major diseases of dairy cattle seen in the winter and spring and the various Cyanamid products which can be used in their prevention or treatment.

☐ **VE-8810** *Pigdex® Fact Sheet*—Describes baby pig anemia and the use of PIGDEX in its control.

☐ **VE-8817** *Tri-Bac® Fact Sheet*—How to use the new, improved TRI-BAC which contains a new strain for better protection against hemorrhagic septicemia, blackleg and malignant edema. Tells how "one shot" immunizes against three diseases.

☐ **VE-8821** *B. H.® Bacterin Fact Sheet*—Describes the new, improved hemorrhagic septicemia—blackleg bacterin and how it is used.

FERTILIZERS

☐ **NT-4002** *Aero®Urea-45% Nitrogen.* Details. AERO Urea's crop uses and benefits. Chart gives recommended rates, timings and application methods. Special section tells about AERO Urea for plowdown.

☐ **NT-4029** *Plan for Profit Corn with Aero Urea.* For any farmer who grows corn. This full-color leaflet outlines soil management and fertilizer practices for increased yields at lower costs.

☐ **NT-4030** *Plan for Peak Profit Forage with Aero Urea.* For dairy farmers, this full-color leaflet tells how to grow top yields of top quality forage... without legumes.

☐ **NT-4001** *Aeropills®—Ammonium Nitrate.* Describes the advantages of ammonium nitrate, 33.5% nitrogen on field crops, vegetables, fruits, easy-to-read chart gives rates, timings, application methods.

☐ **NT-4046** *How To Harvest The "Hidden Milk" On Your Farm.* Details of fertilized and managed forage demonstrations on farms throughout the east.

HERBICIDES

☐ **PE-5004 Amino Triazole Weedkiller.** Tells how to use Amino Triazole for the eradication of Canada Thistle and 18 other tough perennial weeds.

☐ **PE-5009 Cat-tail Control.**

☐ **NT-4016 Tobacco Bed Weed Control.** Tells how to use AERO® Cyanamid Granular for weed control and fertilization in Tobacco beds.

DEFOLIANTS

☐ **NT-4012 Defoliate Cotton with Aero Cyanamid Special Grade.** How to use AERO Cyanamid Special Grade for easier, cleaner mechanical harvesting.

INSECTICIDES

☐ **PE-5039 Malathion Handbook for Insect Control.** Details all malathion's uses. 40 pages are divided into all major crop categories. Easy-to-read charts give rates, timings, suggest combinations with other insecticides.

☐ **PE-5046 Malathion Protects the Whole Garden.**

☐ **PE-5031 Control Animal Pests with Malathion.** How to control external parasites such as lice, mites, ticks, fleas, keds on beef cattle, hogs, poultry, cats and dogs, sheep and goats. Chart gives rate and application recommendations.

☐ **PE-5038 Control Poultry Pests with Malathion.** For the poultryman, this leaflet outlines control of poultry pests such as chicken red mite, northern fowl mite, poultry lice and ticks, flies, etc. Tells how to use malathion directly on the birds, and in and around poultry houses for clean-up and prevention of pests.

☐ **PE-5045 Protect Stored Grains with Malathion.** How to use mala-

thion for on-the-farm protection of stored grain as well as in commercial storages.

☐ **PE-5042 Malathion Cotton Insect Control.** Lists all the insects controlled with malathion with particular emphasis on control of boll weevil, especially hard-to-kill strains. Advantages of malathion's low hazard to men and animals are described. Rate, timing and combination data, based on the recommendations of cotton states, are included.

☐ **PE-5055 Parathion Growers' Handbook.** Contains complete use, rate and timing data. Particular attention is given to safety precautions that must be followed with this highly effective but toxic material.

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☐ **V-4 The Sheep That Count.**

☐ **V-3 Our County.**

☐ **C-6 Roots and All.**

☐ **V-5 SULMET® Sulfamethazine in the Treatment of Livestock Disease.**

☐ **V-6 Hog Cholera Control—the Story of Rovac®.**

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☐ **V-11 Tom Turkey — All American.**

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Ag Editor President Donald Watson presents 1959 Distinguished Service Award to National FFA Advisor, Dr. W. T. Spanton.

Ag Editors Honor NATIONAL FFA ADVISOR

NATIONAL FFA Advisor Dr. W. T. Spanton received the 1959 Distinguished Service Award from the American Agricultural Editors' Association at a winter convention in Chicago.

Ag Editor President Donald Watson said, "Dr. Spanton has been giving advice to farm boys—advice that is based on true knowledge and ripened with wisdom—for more than 35 years. It is absolutely impossible to tell how many thousands of farm boys have been beneficially influenced by his guidance."

Born in Kentucky, Spanton was reared on an Ohio farm. He was graduated from Ohio State University in 1915 and soon thereafter became a teacher of agriculture and science in Ohio high schools. Later he served as state supervisor and teacher trainer in agricultural education in Rhode Island. After a stint as Missouri's state supervisor, Dr. Spanton became the Pacific Region's Federal Agent for Agricultural Education.

In these years vo-ag classes were being organized under the Smith Hughes Act. Some schools organized clubs and judging contests. At a Denver meeting in 1928, Dr. Spanton said: "I cannot too heartily endorse the student organization idea." He urged that all states promote such an idea and adopt constitutions similar to that of Virginia's excellent student organization. Spanton added that the name "Future Farmers," which was being used in some states, was a catchy one.

Dr. Spanton was prominent in a small group that brought the FFA Organization together. He was named on the board of incorporators and is the only member of that group still active in FFA work.

"He became National FFA Advisor and director of the agricultural education branch in 1941. Since that time the FFA has become one of the strongest and finest youth organizations in the world," Watson added.

The ag editors' president concluded by asking, "Can there be any greater contribution to agriculture, its present and its future, than to help make better farmers, better leaders, better citizens out of farm youth?"

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Pull on a pair of slim, snug LEVI'S—and discover what real Western fit means. Feel the strength of that super-tough XX denim, reinforced with Copper Rivets—and discover what real wear means.

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Gets Cooler



Still Cooler

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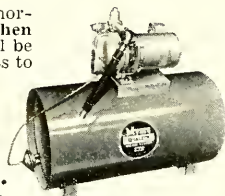
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Reader Roundup

Gilroy, California

In our opinion, *The National FUTURE FARMER* Magazine and the Future Farmer Supply Service are two of the best organizations around. All of our FFA members take the Magazine and find it enjoyable and informative.

The Future Farmer Supply Service has given our chapter outstanding service that has been fast, efficient, and reliable.

Congratulations to you both!!

Vance D. Baldwin
Chapter Advisor

Virginia, Minnesota

I enjoyed your articles "Forestry for Future Farmers" and "How to Stalk a Deer" in the December-January issue. Both are timely and helpful.

How would you eliminate "buck fever" on your first time out? Or any time for that matter?

J. P. Ogrine

Buck fever is nothing more than a case of nerves! Figure out a way to get rid of tension and you're ok. Try deep breathing to get rid of butterflies. Or select some familiar phrase—say the FFA motto—and repeat it over and over to build up confidence and keep your mind occupied. Finally, try the "preview method." Picture the quarry in your mind's eye and decide in advance what your reaction will be. Any other readers have a suggestion for J.P.?—Ed.

Washington, D. C.

I have just received the December-January issue of *The National FUTURE FARMER* and want to take this opportunity to say that I think it is one of the best editions that has yet come off the press.

I want to particularly congratulate you for the splendid editorial you wrote. I think this is the best editorial that has yet appeared in *The National FUTURE FARMER* Magazine and one that I hope will be very widely read.

W. T. Spanton, Director
Agricultural Education Branch
continued on page 18

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McMILLEN FEED MILLS, FORT WAYNE, INDIANA

February-March, 1960



Reader Roundup

London, Tennessee

I am making a speech in agriculture on the topic of transferring farm ownership from father to son. I am using your December-January article entitled "From Father to Son" as a basic reference. Could you supply me with more references on this topic?

Fred Sharp

Your vo-ag instructor can supply plenty of extra information on this subject. USDA has a booklet "Father-Son Operating Agreements" which should help. It's available from Super-

intendent of Documents, Washington, D. C. Price—15c—Ed.

Blair, Nebraska

Enclosed find my subscription payment. I enjoy the magazine very much and believe it to be very helpful, educational, and enjoyable.

Donald Anderson

Thanks, Donald, we'd like to have all readers' suggestions for improving the Magazine—Ed.

Watertown, South Dakota

I enjoy reading your Magazine. It has many interesting and helpful articles for FFA members and their fathers.

Rodney Rau

Washington, D. C.

I couldn't help being attracted by the *National FUTURE FARMER'S* December-January cover. Then I was stopped at your editorial page by several words which caught my eye. Without going further, I read the editorial and was deeply moved by the sincere expression and truth of your words, and wish to take this opportunity to congratulate you upon writing such a noteworthy and fine article. I hope that every FFA boy, his parents, and especially the school administrators, read and digest your words.

Wm. Paul Gray

National Executive Secretary
Future Farmers of America

Dallas, Georgia

I have noticed in many issues that you offer free booklets. I think it is very nice of you to offer booklets that might help readers do a job better. The experience of being a Future Farmer has helped me in many ways. I am sure it will help other members all over the country. Congratulations on your fine work and I hope you will keep it up.

Sharon Gray

Blair, Nebraska

Enclosed you will find an order for the renewal of my subscription to *The National FUTURE FARMER*. I enjoy the Magazine very much, and believe it to be a very helpful, educational, and enjoyable Magazine.

Donald Andersen

Unadilla, Georgia

I'm the secretary of the local chapter of the Future Farmers of America and take *The National FUTURE FARMER*. I think it is the best magazine in the world, and find it a real pleasure to read. The jokes and cartoons are terrific.

Robert Nelson



Model shown: Bonneville TR7/A

TRIUMPH Thrifty!

For week-end fun and a thousand work-day chores.

Fun and farm work go hand in hand when you own a versatile Triumph motorcycle. The new '60 models are powerful, smooth-performing and exceptionally economical to operate.

With a Triumph, you herd cattle, patrol fences...do a host of other chores around

the farm both faster and easier. Triumph is also a fun-filled pleasure partner for your weekend trips. Ride and own a sizzling Triumph...the hottest motorcycle ever built. See the new models at your nearest Triumph dealer's.

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Mail this coupon today for FREE 1960 full-color catalog showing the complete Triumph line and the name and address of your nearest Triumph dealer. Send coupon to nearest address:

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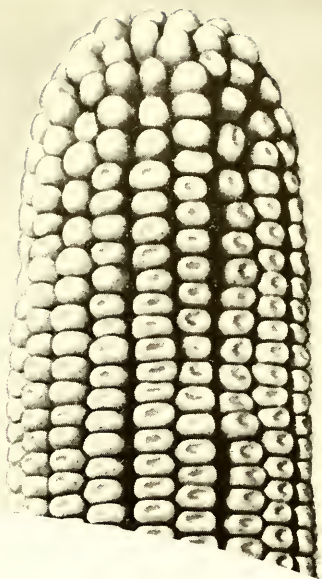
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\$5.00 For FFA Week Idea

We'll pay \$5.00 for the *three best* FFA Week ideas sent to us before April 1. If your chapter has a well-planned program this year, why not tell us about it? If it's among the top three, your prize will follow shortly. Send your entry via postcard or letter to *The National FUTURE FARMER*, c/o FFA Week Contest, Box 29, Alexandria, Virginia. Winners will be notified by mail. Entries become the property of *The National FUTURE FARMER* and cannot be acknowledged or returned. Judges' decisions are final. Limit your entry to 250 words or less.



Plant Funk's-G the corn that wins when you Weigh and Compare

Wherever corn is grown, Funk's-G is setting a profit pace unmatched by any other corn.

Thousands of corn growers have Weighed and Compared. They have tested Funk's-G against all comers. Side by side. In their own fields. Picked with their own pickers. Weighed on scales of their own choice.

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Funk's G-Hybrids are America's Greatest Hybrids, they are consistently good . . . year after year.

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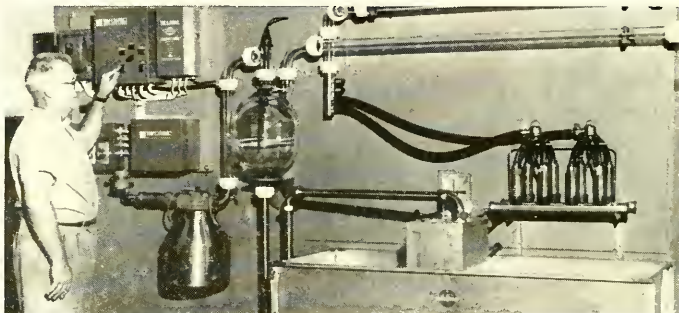


The Hinson Company's "air-cushioned tractor seat" uses auto springs and porous fiber. Write Waterloo, Iowa.



New Idea's 10-foot cutter bar with 2,000 spm knife speed ups capacity by 65 percent. To Coldwater, Ohio.

something new



A push of the power button handles rinsing, washing, and sanitizing of De Laval's pipeline milking system. Information from Poughkeepsie, New York.



The Tiger Winch is powered by any farm vehicle battery. One man can operate it. From 2312 W. Pacific Coast Highway, Long Beach 10, Calif.



Wire-wench splices any wire in 60 seconds. Can also be used as wire stretcher. Pocket-sized. Details from 3511 Corto Avenue, Fort Worth, Tex.



International Harvester's experimental eight row cultivator-planter can be folded for transport and storage or adapted to four-row farming. Left and right gangs raise separately or simultaneously. 180 N. Michigan Ave., Chicago.

The National FUTURE FARMER



White rats tell us about proteins

White rats in MoorMan Research Laboratories help tell which proteins are best for fast, low-cost gains in livestock. They also tell us which suppliers furnish the highest quality proteins. Since rats go from birth to adulthood in six weeks, they furnish a fast method of measuring growth and weight gains due to different feed preparations.

MoorMan researchers constantly test ingredients and work on new feeds to supply the proteins, vitamins, minerals and antibiotics which give best growth or production at lowest cost. Products which look favorable in the laboratory are sent to one of MoorMan's three Research Farms to determine actual results with livestock or poultry. If this is satisfactory, the Field Research team takes over and checks the adaptability and performance under ordinary conditions on the farms and ranches of MoorMan customers.

When a Mintrate has passed all the laboratory, farm and field tests, and only then, is it worthy

of the MoorMan name and offered for sale.

So, *research* is one of the reasons behind the high quality and dependability of MoorMan's Mintrates*. These fully tested and proven mineralized, vitaminized protein concentrates are your assurance of fast, low-cost gains.

A sharp pencil and accurate records are important tools of the researcher. They help to tell him the results. They help show him the way to improvement. These same tools are important on the farm or ranch. They help you plan your future programs and figure your profits.

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CATALOGUE**



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Strides in Insecticides

Research offers newer, better pesticides for crops and livestock. Top farmers will use them.

DEVELOPMENT of microbial insecticides represents a major breakthrough for agricultural research. This revolutionary approach to pest control depends on *live bacteria* to start *disease outbreaks among insects*. Both the diseases and the bacteria are harmless to plants or man.

Several companies are planning to market a microbial product. Only one, *Thuricide*, is now available. It is a wettable powder preparation, and will kill leaf-eating pests on alfalfa, cotton, lettuce, cabbage, cauliflower, spinach, tomato, and tobacco.

Microbial pesticides do not harm beneficial insects and leave no poisonous residues. They are fairly inexpensive and can be mixed with chemicals for extra strength if needed. Experimental insects at the University of California have failed to build up an immunity to these new killers.

There are a few drawbacks though. Microbial applications have to be timed carefully to be available at the insect's proper development stage. Since each insect type has its own weaknesses, no all-purpose compound is yet available. It may never be. Combinations, as they become available, will be required for controlling several varieties at once. And each may call for a different application time.

Remarkable progress is also being charted in the control of livestock insects. Screw-worm control is being revolutionized by the "sterile-male" approach. Research shows that females mated with sterile males produce infertile eggs. Males mate many times, females only once. The idea is to sterilize radioactively a large number of male screw-worms and distribute them in infested areas. Researchers feel this would gradually reduce the screw-worm population in most cases. Eventually, the pest might be completely eradicated. For example, one test began in July, 1958, with about 40,000 screw-worm cases being reported every month in Florida. Not a single screw-worm has been found in the state since June 17, 1959.

Several other laboratory and field tests support this theory, but all cost and management problems haven't been solved. For instance, it isn't practical in parts of the Southwest which are also plagued with screw-worms from Mexico.

Researchers have dreamed of an ef-



New insecticides may put an end to crippling damage of cotton leafworm.

fective cattle grub systemic for over 50 years. Now there are two: Trolene and Co-Ral.

Trolene, an oral preparation discovered in 1954, was the first breakthrough. It is now available commercially as either a bolus or a drench. One ounce per 600 pounds of animal body weight gives 85 to 100 percent control.

Co-Ral is an over-all body spray absorbed by the animal's skin and transferred to all parts of the body. A 0.5 percent concentration is applied with power equipment several weeks before grubs normally come to the skin surface. About one gallon per animal gives 75 to 100 percent control.

So far, these are the only systemics recommended for this purpose by the USDA. Others will doubtless follow. Federal regulations prohibit using either insecticide on dairy animals. Nor are they recommended for any sick or very young animals.

In this age of new compounds and rapid research, one thing is unchanged. All insecticides still have "use only as directed" advice with complete instructions for application. Specialists urge strict observance! Modern pesticides are better than ever; but best results come only with proper use.

Newer and better preparations are probably just around the corner in all fields of pest control. Tomorrow's farmer may regard the insect as only a minor headache. But even today's accomplishments are almost beyond belief when compared with those of a few years ago.



Low-cost, 2-3-plow Diesel gives you more “do-ability,” famous IH durability!

32 hp* International® B-275 outfeatures other 2-3-plow Diesels...outworks, outsaves them all!

The B-275's price tag is low! Fuel savings of up to 50% help it pay for itself, fast! But greater “do-ability” is what makes the rugged B-275 the most wanted Diesel in its class.

Smooth, 4 cylinder direct-start Diesel engine delivers 29 drawbar hp for just pennies an hour.

**Belt hp corrected to standard conditions*

Seven power sizes—10 to 85 hp—with today's widest choice of models and fuels make it easy for a farmer to pick a Farmall® or International tractor that *exactly* fits his needs. All these IH tractors have job-speeding, work-saving features galore. And extra built-in weight for more seasons of carefree service, and operator comfort that tops 'em all are typical bonus features. Contact your IH dealer for a demonstration of any IH tractor and matched McCormick® equipment.

And eight speeds forward *exactly* match power to the load. This can skyrocket daily work output . . . slash costs on every farming job.

New differential lock instantly locks a slipping drive wheel to its ground-gripping mate to power through tough spots non-stop. Rugged 3-point hitch handles more 3-point equipment than any other tractor!



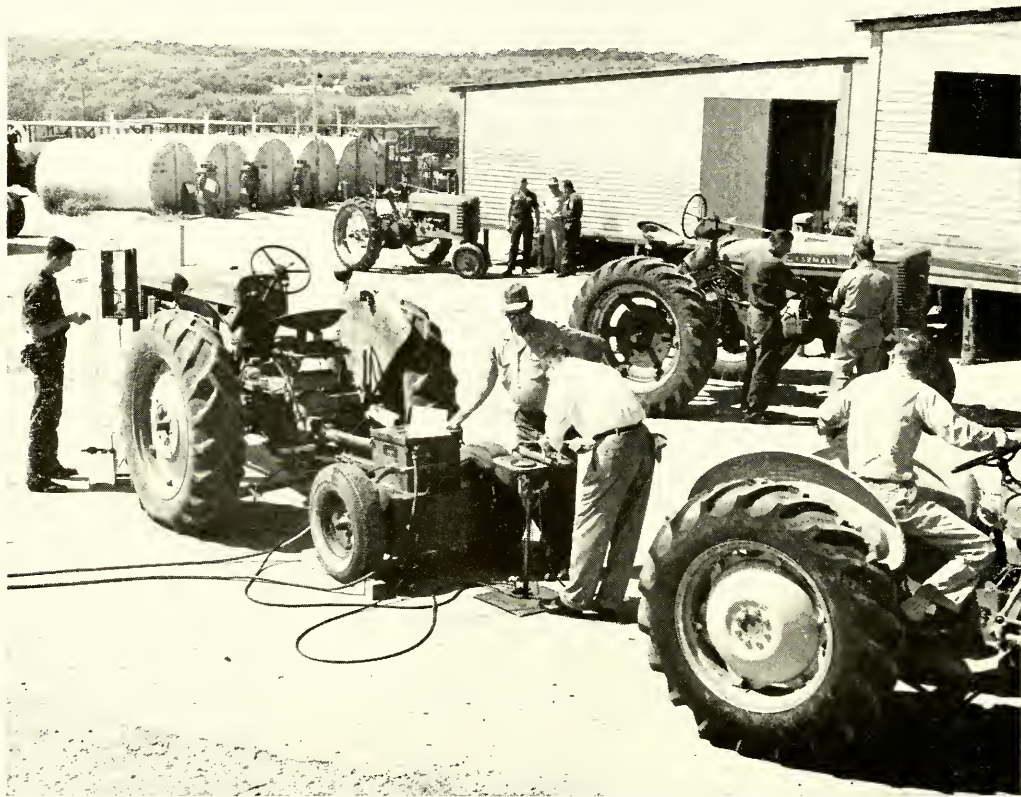
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International Harvester Products pay for themselves in use—Farm Tractors and Equipment . . . Twine . . . Industrial Tractors . . . Motor Trucks . . . Construction Equipment—General Office, Chicago 1, Illinois

Mass dynamometer test shows borderline spark plugs

These tractors came right off farms around San Antonio, Texas. Even though the owners thought their spark plugs didn't need replacing, 45 of the 49 had borderline plugs—with unnoticed or slight misfiring. Here are the surprising facts about how much power and gas these borderline plugs can waste . . .



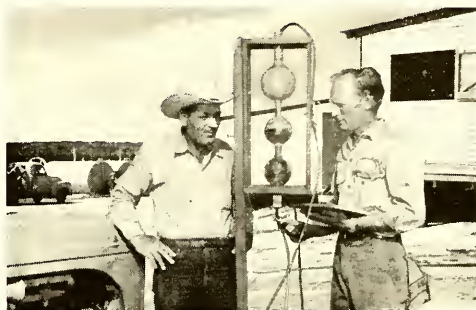
At San Antonio's Automotive Research Associates, engineers use a power take-off dynamometer to test the pulling-power and gas economy of a tractor before and after new spark plugs are installed.

Said E. D. Steubing, owner of the tractor being tested above, "I found out that even though my tractor *sounded* all right, the plugs were 'borderline'

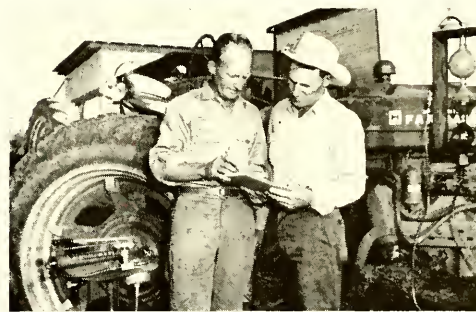
and should have been replaced before they had a chance to waste so much power and gas."

Steubing was typical of the 45 farmers participating in this test who didn't think their spark plugs needed replacing—yet whose tractors averaged 8.98% *more* horsepower and 7.22% *better* gas economy after new Champion spark plugs were installed.

45 of 49 tractors have that waste power and gas!



Farmer Ross Snider (above, listening for signs of misfiring before the test, and checking fuel consumption with engineer) says, "My tractor sounded O.K. and I didn't think it needed new spark plugs yet. But I sure learned you can't always tell when 'borderline' plugs are wasting gas, because the test showed my gas economy increased 7.90% after new spark plugs were put in. Take a time like when you're out pulling a double-disk plow all day, that's quite a gas saving."



Farmer Alvin Santleben (above, watching dynamometer dial that measures pulling-power and checking test results with engineer) says, "My tractor seemed to be running all right, but the test showed that just new spark plugs alone increased the horsepower 13.30% and gas economy 14.41%. It proved to me that you're money ahead in the long run to replace plugs *before* they get 'borderline' and start to cost you power and gas."

Not one of these farmers thought his tractor needed new spark plugs. Yet dynamometer tests showed that, in 45 of the 49 tractors, *borderline* spark plugs were wasting important amounts of power and gas!

If you don't replace spark plugs until you notice poor engine performance, then *borderline* plugs waste your power and gas, too. Prevent this waste. Keep your engines at full power and economy by installing new Champion spark plugs *regularly* — every 250 hours in tractors, every 10,000 miles in cars and trucks.



DEPENDABLE

CHAMPION

SPARK PLUGS

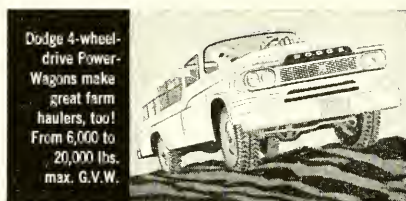
CHAMPION SPARK PLUG COMPANY
TOLEDO 1, OHIO

EVERY MAJOR U.S. TRACTOR MAKER USES CHAMPION SPARK PLUGS

GRADE "A" MONEYSAVERS... Look for a

big drop in costs when you buy one of these all-new Dodge trucks. They're engineered to out-save any other haulers on the road! Here's a new fleet-wheeled Sweptline with more load space (up to 84 cu. ft.) than any pick-up in its class . . . and the power to pull a full load through the soggiest feedlots or snowiest fields. There behind it is a new Dodge stake, yours with a wheelbase up to 193"; a 9', 12' or 14' body; and an engine as big as 202 hp. to tailor it to your kind of hauling. You'll like *all* the great 1960 Dodge trucks (4,250-lb. G.V.W.

light-duty models to 76,800-lb. G.C.W. giants)—*premium in every way except price!* See them at your Dodge dealer's today!



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TO SAVE YOU MONEY IN TRUCKS

A PRODUCT OF CHRYSLER CORPORATION





RANCHING by the

BOOK

A \$500 investment in agricultural books has helped Ivan Walter boost his net worth to over \$10,000.

IVAN WALTER believes in doing things right. He insists on using approved practices and up-to-date methods for any job—especially ranching.

When he faces an unfamiliar decision on his Billings, Montana, ranch the 1959 American Farmer Degree winner consults his agricultural library. He has used this practice to build an operation now worth over \$10,000 net. He upped labor income from \$28.40



Ivan sub-rents his fertile pasture to local cattlemen who are glad to pay a premium for the well managed grass.



Reclaiming this land helped Ivan win state soil-water management award.

Ivan, left, visits local equipment dealers to keep abreast of prices.



during his Green Hand year to \$1800 his senior year.

Ivan rents land from his father on a one-third, two-thirds basis to grow such crops as sweet corn, winter and spring wheat, barley, field corn, alfalfa, and pasture. His father buys half the fertilizer and furnishes part of the machinery. But Ivan does his own field work and keeps separate records. He has accounts with local machinery and seed dealers. He has \$9,100 worth of farm machinery and owns land valued at \$3,750.

When Ivan was 10, an uncle died leaving him a \$4,285 inheritance. It included 12.5 acres of irrigated land, a 1938 tractor, and two plows. His interest in ranching started growing from that moment. And vocational agriculture has helped him turn his enthusiasm into productive energy.

Ivan's operation is rather unusual. He has time for custom work and helping other ranchers and farmers. Since 1953, his sideline earnings from picking beets, mechanical work on farm machinery, farm truck driving, and feeding neighbors' livestock has reached nearly \$1300.

Primarily however, he is kept busy on his home ranch of 452 acres. When Ivan completed his application for the American Farmer Degree he had a two-

thirds interest in 15 acres of sweet corn, 99 acres of field corn, 12 acres of winter wheat, 7 of spring wheat, and 13 of barley.

In addition, he has been cooperating with his father and older brother in a contract agreement with a local cattle feeder. The Walters furnish 40 acres of alfalfa, 87 acres of irrigated pasture, and 28 acres of dry land pasture for the cattle. They handle feeding and other management chores in return for a fee based on profits. The three of them share equally in the contract program.

Ivan often profits by refusing to spend money unnecessarily. State FFA Advisor A. W. Johnson says the young rancher built a cultivator for \$185. If bought new, it would have cost him about \$900.

Advisor Raymond Agee says, "Ivan has been quite a leader in the FFA. He served as Yellowstone Chapter President and State Reporter. He was also selected by the high school to attend Montana Boys' State."

Ivan Walter has made good use of his vo-ag training, FFA leadership, and high school education. At 22, he's regarded as a smart rancher and solid citizen—the kind who walks into the local bank to finance ranch ventures and expansion plans on his signature.

WE CELEBRATE

National FFA WEEK



Three foreign students from Ohio State University pose with Bremen Future Farmer Jim Gordon during FFA Week. From right, Miss Widad Al-Windawi, Iraq; Latifeh Anus-shahi, Iran; and Kiyoshi Tsuji, a student from Japan.

Here's a chapter that treats FFA Week like a national holiday. It takes a lot of work, time and planning, but everyone has a good time.

FUTURE FARMERS at Bremen, Ohio look forward to National FFA Week every year!

So do a lot of other people in Bremen. It's a big week for businessmen, town officers, and school officials too. And this February 20-27 will be no exception. The weekly *Bremen Derrick* will be dotted with FFA emblems in special congratulatory advertisements. Photos of blue-jacketed Future Farmers will dress up the front page.

Radio station WHOK will again be furnished special FFA recordings for the week. Last year, Advisor R. M. Foltz and his charges selected, "I'm in love with the Boy of the FFA," and "Hail the FFA" for spot broadcasting.

Other 1959 publicity came from 10 large FFA posters and 100 FFA seals which were distributed throughout the community. These were part of the regulation FFA week materials prepared by the national FFA office.

Mayor Sherman Householder is all set to issue another official Bremen "FFA Week Proclamation" this year. Advisor Foltz says, "The Bremen Chapter has been issuing a special proclamation longer than has the national office. What's more, FFA Week is listed on the community's regular calendar of events."

During the entire week, all chapter members wear official FFA clothing—jackets, ties, T-shirts, or pins. They always attend some local church as a group dressed in white shirts, ties, and FFA jackets. A group picture is usually taken during the week. "It's a good time to catch everyone at his best," Foltz says.

The Bremen FFA reporter works overtime. But he often gets help from other chapter members. He prepares short articles listing each member's accomplishments for the year. They are presented to each newspaper in the county.



Planning Bremen, Ohio's Future Farmer Week "celebration" is a big job requiring coordination with businessmen and high school heads.

The program chairman is busy too. He plans a special program for some local farm group. Last year it was the Rushcreek Grange. A special high school assembly is another highlight. Here the FFA Queen is introduced, followed by talks from visiting foreign students.

That's almost a story within itself! This will be the ninth year Bremen Future Farmers have invited foreign students from the Ohio State University to their school. Chapter members play host, taking the students into their homes for a week. They have entertained guests from China, India, Latvia, Korea, Japan, New Zealand, and Germany. "It's interesting to learn customs and farming conditions of other lands," Foltz says.

Other events include a joint FFA-FFA party, an invitation to eighth grade boys to visit the chapter, and distribution of *The National FUTURE FARMER Magazine* to local business offices. Finally, each local newspaper advertiser who congratulates the FFA

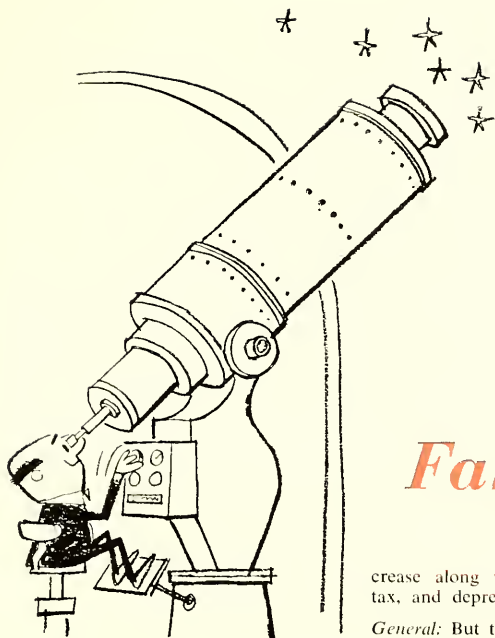
receives an individual "thank you letter" from a chapter member.



FUTURE FARMERS OF AMERICA

Do You Celebrate FFA Week?

You can stage a hard-hitting FFA Week celebration. Start by taking a look at the special brochure which you received from the Future Farmers Supply Service. It contains a list of FFA Week posters, seals, editorial cartoons, place mats, and other promotion materials sold at cost.



By Joe Dan Boyd

EACH YEAR, agricultural specialists and economists from across the nation gather in Washington, D. C., for the Agricultural Outlook Conference. Their combined findings serve as a guide for the press, industry, and the farmer.

This summary of expert opinion is presented as a special service by *The National FUTURE FARMER*. It's intended to help you plan the coming year's farm or ranch program. Study it! Adapt it to your local situation by reviewing your own past experience and consulting your vo-ag teacher or young farmer advisor.

The Big Picture

Income: Net farm income for 1960 will be about seven and one-half percent less than 1959. That means about 10.4 billion dollars across the country's farms. Income from 1960 dairy products, cotton, and tobacco will likely be more stable than other farm enterprises. Farmers' non-farm income, which accounted for 28 percent of their net income, swept upward in 1959. Will probably go higher in '60.

Outgo: Last year, farm production costs rose by two percent. And there's little hope for a 1960 reduction in farm wages or machinery, vehicle, and building costs. Fact is, they'll probably in-

crease along with overhead, interest, tax, and depreciation expenses.

General: But the outlook isn't all bad. Farmland values, farm assets, and rural levels of living have continued to rise since 1951. It's an encouraging sign, although indications point to a current tapering off. Consumer demand for 1960 looks good. Population is increasing and consumer income is rising. Government farm program in 1960 will not change much. Available funds will permit an expansion of about five million acres in the Conservation Reserve.

Meat Animals

Production: Average cattle slaughter weight is expected to be down in 1960 but red meat supplies are practically sure to set a record. Total slaughter volume will top 1959 by six percent. May amount to 161 pounds of meat per person. Consumption predicted to equal 1956 and 1957 record levels. Spring hog crop will likely decline, with total 1960 production down 11 percent from 1959. However, USDA does advise against "overdoing" the hog business in '60.

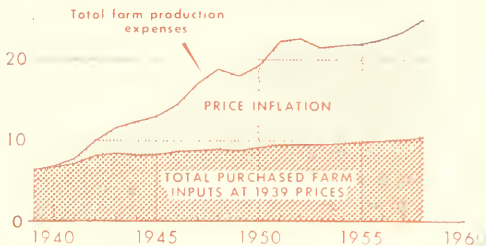
Prices: If low point of hog cycle hasn't hit, it soon will. Production cuts could boost hog prices into the \$14 to \$18 range during last half of '60. Remember, both cattle and lamb prices started their downward trend in the current price cycle last fall. Cattle prices down by five to eight percent in '60, but no serious threat if cattlemen continue to "build up" herds. Lamb and mutton prices will parallel 1959 averages.

Dairy

Production: Dairymen have held production steady for the past two years.

Inflation Accounts for Much Of Rise in Production Costs

BIL. DOLLARS



Your 1960 farm or ranch plans may be affected by this situation as charted by USDA. Are you ready to meet it?

Farming in '60

Now it's paying off as output and consumption figures begin to look alike. With renewed confidence, dairymen will probably increase milk output in 1960. Feed costs will be lower, with plenty of available roughage. Look for a record in volume of dairy products.

Prices: After seven years of support-level prices and moderate-to-heavy CCC buying, prices are on an upgrade. Both milk and butterfat prices are expected to average higher than in 1959. Increased production costs will probably keep net income near last year's mark, however.

Grain

Production: Livestock-feed ratios will continue to favor dairymen and cattle feeders in 1960. Slightly over 53 million acres of wheat will be harvested from a 55 million acre minimum allotment. Production is expected to top 1959 by eight percent. Reports indicate good growing conditions in the winter wheat belt, barring severe cold spells or damaging winter winds. Feed grain consumption isn't rising fast enough to keep ahead of increased production.

Prices: All feed grain prices are expected to dip slightly this year due partly to a 1959 record corn production and declining livestock prices. Biggest drops will be in corn and sorghum prices. Minimum wheat support for 1960 stands at \$1.77, down four cents from last year. It won't be reduced, but could be raised if 1960 parity price exceeds last year's figures. Corn support price will probably be about the same as last year's \$1.12. Sorghum grain prices could advance seasonally by spring. *Continued on page 64*



Fortuna, California Future Farmers regularly pick up the city's litter cans, buff, repair, and repaint them in the shop. From left, Arthur Owens, Leslie Hayes, Pat Eisan.



A Texas boot company presented new footwear to Texas' new FFA Sweetheart and FFA President at the 1959 Convention. The couple is Elaine Pennington and James Prewitt.



These FFA members are identifying plants in the state's Agronomy contest held at the University of West Virginia.

Vice President Nixon and former FFA President A. Hester congratulate Regional Star State Farmer Carl Gadsby, left. He won this purebred Angus at Eastern States Exposition.

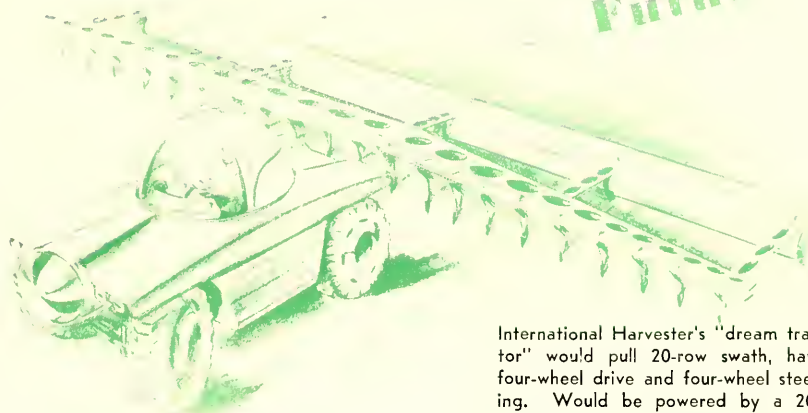


photo roundup

These heifers are about to be shipped to Turkey with the compliments of Ohio's Future Farmer Association. It's a part of the Christian Rural Overseas Program for Ohio.



In Your Future?



International Harvester's "dream tractor" would pull 20-row swath, have four-wheel drive and four-wheel steering. Would be powered by a 200 horsepower or free-piston engine.

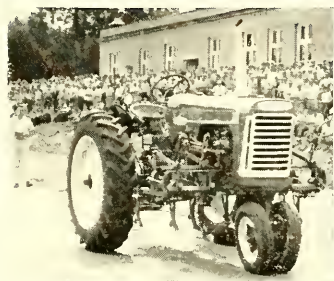
IF YOU were to step suddenly into the future—say 1980—you probably wouldn't recognize the farm tractor.

Most machinery company officials believe the next 15 or 20 years will produce a revolution in farm equipment. For instance there may not be too many days of cold noses, cars, and hands left for tractor operators. Completely enclosed cabs may well become standard equipment soon. Air-conditioning will probably make the scorching days more bearable.

R. L. Randt, of The Oliver Corporation, says "A tractor cab of the future must provide weather protection and be strong enough to protect the operator in case the tractor should be overturned."

Practically all researchers feel that increased operator comfort and safety will result in more efficient farm work.

This experimental model is started, accelerated, steered, and turned by remote control. Electronic controls can also raise and lower cultivator.



Robert L. Erwin, of Ford Motor Company, told a group of young farmers, "Our aim is to provide for more output per man and reduce the manual effort of a farm worker to the level of the average office employee."

Over-all tractor design is getting a critical once-over from the industry, too. As trailed equipment gets larger, some researchers think a complete design overhaul will be needed. Eventually, this situation may eliminate the operator altogether, or at least take him from the conventional seat. Machinery officials say a newly-introduced device, the tractor *self-steering unit*, will follow a row, a windrow, a furrow, or a standing wall of grain.

Power systems? Well, you may be able to junk the old gasoline tank in the near future. There will undoubtedly be a startling change in tractor power systems.

Allis-Chalmers has produced an experimental tractor powered by *fuel cells*, a new source of electrical energy. Cells are fueled by a mixture of gases, mostly propane, and power a standard 20-horsepower motor. In field tests, the tractor pulled a two-bottom plow through dry, hard ground.

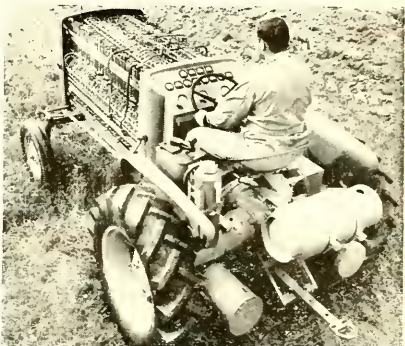
And what about atomic energy? It may be used sooner than many think. One company has produced a scale model of an *imaginary* farm of about 100 years in the future. In it, atomic-powered tractors work the soil with ultrasonic equipment which loosens the earth with high-frequency vibrations.

While there are many different opinions concerning tomorrow's farm tractors, one thing is certain—they will be better, more efficient and different.



Oliver's experimental tractor has a two-way telephone, radio, air-conditioning, straight-line body design.

Allis-Chalmers' research tractor has a 20-hp motor powered by 1,008 fuel cells. No internal combustion engine.



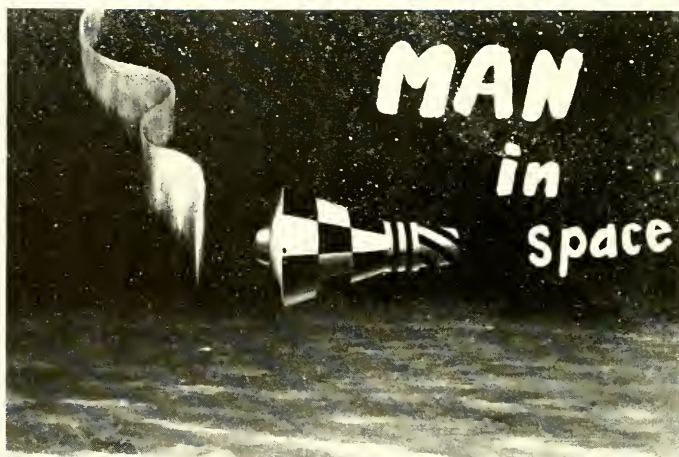
Project Mercury

By Don J. Green

HE WILL BE a university graduate with a degree in engineering. . . . He will have graduated from one of the military test pilot schools. . . . He will be younger than 40 and not taller than five feet, 11 inches. In superb physical condition, he will possess all the attributes suited for space flight," so spoke Dr. Keith Glennan, director of the National Aeronautics and Space Administration. He was referring to the pilot who will orbit the earth in a cone-shaped satellite.

By mid-summer 1961, a dedicated young man is scheduled to embark on the greatest adventure since Columbus sailed the uncharted Atlantic. Project Mercury is its name; our national effort to put man into space.

A seven-man team of astronauts already has been chosen for the project, but they still have months of exhausting tests to undergo. The one most suited for space flight will step into the cabin, be strapped into a form-fitting couch, and be blasted into orbit around the earth at an incredible 18,000 miles an hour.



The space capsule will resemble a television tube. Weighing between 2,000 and 2,500 pounds, it will have a blunt seven-foot leading face. The cone, including antennae, will be 29 feet high. It is built to withstand every known combination of aerodynamic force and extreme heat.

Inside are the pilot's controls, a radio system for talking to earth, navigation periscope, and recording equipment. Little jets of hydrogen peroxide will guide the capsule in outer space.

The propelling rocket will be an

eight-story high Atlas. It will be fired from the missile test center at Cape Canaveral with the Mercury capsule and escape rocket system atop. During the countdown the pilot will lie on his back looking through a tiny periscope.

He will be wired with a network of electrical recording gadgets and will wear a skin-tight aluminum suit, plastic helmet, and tight-fitting high top boots.

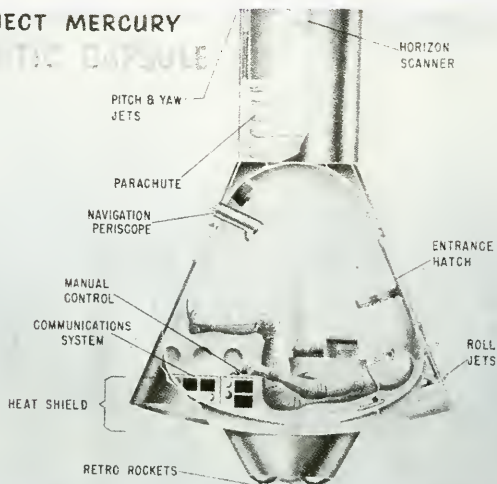
Everything must function perfectly before blastoff and yet our astronaut must tense for a possible misfire. If a radio voice commands, "Eject," he will push a button triggering the escape rocket that will parachute him safely to earth.

The missile will scream upward, subjecting the spaceman to a 9 G force. (One G is the measure of pressure required to move a body at the rate of 32.16 feet per second. Everyone is subjected to G force in normal gravity. You notice it when an auto suddenly speeds up.) As he careens into orbit his pressure will ease and he will be in the world of weightlessness, darkness, and complete silence.

At 40 to 50 miles altitude, the Atlas booster engines will burn out and drop. Orbital speed will be reached at about 100 miles altitude. As the capsule and vehicle are separated by small rockets the capsule will be flipped over facing the pilot to the rear.

Travelling eastward, he will circle this planet every 90 minutes. He will make three circuits around the earth,

PROJECT MERCURY



then begin a delicate descent into the dense atmosphere.

Somewhere north of Hawaii, engineers tracking the capsule from a ground station will fire the three retro-rockets located in front, subtracting 350 miles an hour from the capsule's speed. The capsule will be somersaulted and the astronaut will again be riding with his back downward. He will get more heavy G pressure.

Plunging into the denser air, his capsule will bounce like a pebble skimming over a pool of water losing speed each time it hits. The well-insulated capsule will glow red from heat caused by friction. As the vehicle reaches the speed of sound (generally 750 miles an hour at sea level), a parachute automatically will pop out and help slow the capsule at 60,000 feet. Once the satellite reaches 10,000 feet the pilot will release another chute and come floating down to earth.

If his timing is right our spaceman should land in the sea near Cape Canaveral. Ships will be standing by to pick him up. The capsule will float and will be equipped with food and supplies for more than 40 hours survival.

There has been some fear that the first flight will mean risking almost certain death, but Dr. Abe Silverstein, director of space flight development for the National Aeronautics and Space Administration, says our space systems will emphasize safety even if other factors must suffer. He says no definite single day is scheduled for the manned flight. It will be made when both the man and the capsule are ready and all the conditions are as desired. "It is much better," he says, "to completely eliminate the bugs from the system and then launch it, than to try to meet deadlines, just for the sake of keeping up with our competitors in the space race."

A new set of experiences will confront and confuse the first space pioneer. How he will react can only be

continued on page 50

The first American in space will be one of these 7 astronauts. Seated, Virgil Grissom, Malcolm Carpenter, Donald Slayton, Leroy Cooper. Standing from left are Alan Shepard, W. M. Schirra, and John H. Glenn, Jr.



Standing from left are Bill, Gerald, Nelson, Tom, Dick, Kenneth, Ronnie. Seated: Mr. and Mrs. C. A. McNutt.

The Story of



STATE FARMERS

By Leon Boucher

FEW FAMILIES have had as much FFA woven into their lives as the C. A. McNutt family of Dunkirk, Ohio. The family of seven boys and one girl have received seven state farmer awards in the last 16 years. Six of the children are college graduates, one is a freshman in Agricultural Education, and the youngest is a senior in Hardin Northern High School, Dunkirk, Ohio. Dad received the Honorary State Farmer Degree in 1956.

All are presently engaged in agricultural work with the exception of Margery who is a registered nurse and Gerald, who is teaching high school courses in business education. Mr. and Mrs. C. A. McNutt are still farming the home place of 160 acres near Dunkirk. Here is a summary of their accomplishments:

Bill was graduated from Ohio State University in 1948 and taught vo-ag for two years. He is presently a Farm Bureau organization director. Bill carried vo-ag swine and sheep projects with cash crops for feed and sale.

Gerald was graduated from Ohio Northern in 1956 and is now a business education teacher. Before college he farmed at home for six years, then served three years in the Navy. Gerald had several livestock projects and rented additional land for his farming program.

Nelson, a 1958 Ohio State University graduate, is farm manager of an Ohio pony farm. Before serving in the Navy, Nelson specialized in Duroc hogs and a sheep enterprise. He introduced poultry to the home farm.

Tom, a 1955 Ohio State University graduate, is a vo-ag teacher at Dublin, Ohio. Tom managed a beef enter-

prise and handled a large crop program. **Dick** was graduated from Ohio State University in 1959 and last year started teaching vo-ag in Utica, Ohio. Dick improved and expanded the home farm swine enterprise. He also specialized in poultry.

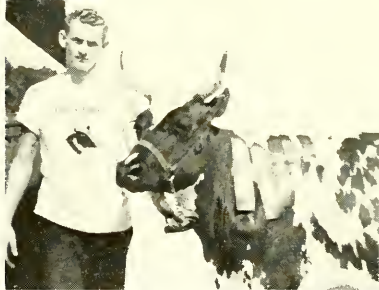
Kenneth spent two years in the Navy after high school graduation. He is now a freshman in Agricultural Education at Ohio State. He carried swine projects, increased the poultry enterprise, and shared in the home crop program.

Ronnie is finishing his senior year in Hardin Northern High School, is president of the FFA, and plans to enter Ohio State next year. He has sheep, swine, corn, oats, wheat, and hay in his farm program.

Margery is the only girl in this family of seven boys. Not to be outdone by her brothers, she was graduated in nursing from White Cross Hospital and is now a registered nurse.

Lewis Rader, vo-ag teacher in the Hardin Northern School for the past twenty years, completes the triangle of parent, students, and teacher. Mr. Rader has taught all seven students. He holds the Honorary State Farmer and the Honorary American Farmer Degree, both received in 1958. His chapter received a silver emblem award in the National Chapter Contest in 1957.

Here is the total Future Farmer picture of a good farm. It is operated by well-trained, progressive parents with interested, hard working boys endowed with leadership abilities, and a practical, enthusiastic teacher of vocational agriculture.



This purebred Ayrshire was Rodney's first vo-ag project. She won grand champion honors at the state fair.

BORN to FARM

By
Joe Dan Boyd

National FUTURE FARMER Associate Editor Joe Dan Boyd asks questions about Rodney's replacement program.



Rodney's management program allows him to graze about 70 head of top dairy animals on 59 pasture acres.

Culling is a family chore for the Caulks. Here Joan and Vo-Ag Advisor Horace Short examine DHIA records.



Ever since he could remember, the tall Easterner had

Everyone had encouraged him. His dad

his vo-ag teacher was ready to help.



Rodney hauls manure from his dairy barn regularly. It's a major part of his soil and feed-crop management plans.

THE TALL blond farm youth had been graduated from high school less than half a year. The partnership with his father was in full bloom. Both had everything to live for. They had big plans.

Then an auto accident took the senior partner! But Rodney Caulk took over without too much trouble. He'd been a partner for three years. And farm life was really all he ever wanted. The first decision he could recall was to become a farmer.

Rodney Caulk's legacy was large by most standards. The will left him 325 acres of fertile farmland near Wyoming, Delaware. His share of animals, equipment and buildings brought the total to something over \$93,000. The inheritance tax bill was nearly \$12,000. Rodney had to borrow money to pay it.

That was nearly three years ago. Last year when he was named Star Farmer of the North Atlantic Region at the National FFA Convention, his net worth approached \$125,000. According to his American Farmer Degree application, practically everything on the farm had been improved.

This called for an on-farm visit. I had to see it! *National FUTURE FARMER* readers should have the details of this program, I reasoned. Rodney's methods and views could help others.



Star Farmer Caulk keeps his \$18,600 machinery investment in condition with on-the-spot maintenance. Here he makes a minor combine adjustment during a routine inspection.

wanted to become a farmer.

welcomed a partner in the dairy operation and

But suddenly he was alone!

It didn't take long to figure things out. The key to his success is fertile soil and a strict management program for both cropland and pasture. Vo-ag Advisor Horace Short helped him reach both goals.

You have to walk through the barnyard to reach Rodney's pasture. On the way, you pass two huge silos filled with corn-sorghum silage and a temporary bin for husked, golden corn. Glancing to the left, you can spot the grain elevator, manure spreader, hay baler, corn planter, grain drill, and hay mower he has bought since taking over the farm's management. His total machinery holdings are worth about \$19,000.

We had reached the sprawling ladino clover and orchard grass pasture when Rodney said, "I have 59 acres of permanent pasture and a little over 15 acres in temporary pasture each year. That's plenty for my 70 head. If anything, I have *too much* pasture."

That's when I started asking questions about his pasture management! "I use rotation grazing the year round," Rodney explained. "Sudan is my summer supplement. In winter, it's crimson clover and oats. I try to mix some timothy, red clover, and alsike clover in the over-all pasture program."

Rodney fertilizes his pasture regularly. He usually alternates with 50 pounds of 5-10-10 or 8-16-16 (depending on the results of a soil test), one year and 250 pounds the next. He spreads with a grain drill, keeping the disc high enough to barely scratch the surface. For lime application, he prefers a truck spreader.

"I believe in producing my own feed," Rodney added. "This past season my program included 40 acres of corn for grain, 35 acres of winter oats, and 21 of barley." The soft-spoken Easterner also grew 16 acres of spring oats and harvested 30 acres of top-quality hay. It was plain that he pro-

duced everything except his 32 percent dairy supplement, beet and citrus pulp, soybean oil meal, salt, mineral, and molasses. The core of his dairy ration comes from his own land.

"I have all my feed ground and sacked at a local mill," Rodney adds: "it takes less than an hour to have a load processed, and it's cheaper than installing a bulk system for my own operation."

You have to notice Rodney's giant silos—"I manage to stack 300 tons of silage in there every year," he said. "We usually plant Atlas sorgo and hybrid corn at the same time. Then we harvest, chop, and blow it in the silos."

"We" turned out to be Miss Buela Virdin, Rodney and Joan Caulk, plus a full-time hired worker, Miss Virdin is legal guardian for Rodney who doesn't turn 21 until February 5. Joan is his one-time high school sweetheart

Continued on page 44



Your vo-ag teacher can help tailor an operating agreement to your farm.

The right agreement can save you money . . .

THERE ARE several ways of managing the home farm business to help the younger generation get started, and preserve family ownership and control. These include father-son partnerships and family corporations.

The father-son partnership permits the capital assets of the father to join forces with the labor, aggressiveness, and technical training of the son. For a legal partnership to exist, all partners must share not only in the net profits, but the expenses as well. The partnership must have a name, only one set of books, a joint bank account and joint management by the partners. Essentially, it is co-ownership of the farm business.

Such an organization does permit the son to assume interest and responsibility in a going farm business. However, there are several factors which may become definite disadvantages from such an arrangement. Under

a partnership, there is unlimited liability of all partners for the acts of another partner when he or she is acting under the scope of partnership business.

Each partner is personally liable for the debts and obligations of the partnership. For this reason, extreme caution should be taken in selecting partners. Upon death of one of the partners, the partnership must be dissolved. Unless proper wills have been developed, the going farm business may become split up into inefficient units.

Another organizational structure which can be used to transfer farm property is the corporation. This sets up a continuing operation. A corporation exists as "long as its shareholders desire and the corporation fills the requirements of the law." It can continue to function from one generation to the next, because shares of stock, rather than farmland, livestock, and equipment, are passed to the next generation.

Partnership VS. Corporation

**Do you know which is best for
your farm or ranch
operation?**

The owner of a share of stock may sell it, leave it to persons by will or make a gift of it without breaking up the business. Shares of stock also provide a simple way for the oncoming generation to buy gradually into the farm business.

Using annual tax-free gifts in connection with stock transfers under a corporation farm structure is a highly desirable method of transfer. The whole farm remains intact. Income-producing stock may go to the parents and all heirs. Taxation is reduced to a minimum. The son operating the farm may either buy or be given increasing equity in the farm through stock transfer. The parents are able to retain equity in the farm, but major operating responsibility can be transferred to the son if desired by electing him manager of the corporation. Income may also be provided through salaries and bonuses paid by the various jobs stockholders perform in the farm business.

When establishing either a partnership or a corporation, several conditions must be met in order to assure success. The farm must be of such size to be able to support the several families of all parties seeking to make a living on it. Also, it is essential that all parties be able to get along with one another. Family quarrels and disputes often hurt efficient operation and can lead only to hardships and possible dissolution of the business.

Income tax differences should also be considered, as these may vary between the various organizational structures. Under a partnership, income tax is paid only on the income received by the individual partners. While under a corporation, income tax is paid by the individuals on their salaries, stock dividends, and bonuses, as well as the corporation on any net profits made.

Of great importance is the 1958 tax law change which now permits a corporation to elect to be taxed out as a corporation. This eliminates double taxation. A setup of this kind is called a "pseudo-corporation." Here is how it works: Corporation stockholders can vote not to be taxed as a corporation. Instead, any corporation profits (income above salaries, bonuses and other operating expenses) become taxable to the stockholders as if the income had been distributed to them in added salaries or bonuses.

Any operating losses of the corporation (incurred when total income is not sufficient to cover salaries and other operating expenses, and must be paid from corporate savings) would be prorated to stockholders and would be deductible from their income as a legitimate expense. Most family farms and other small corporations can qualify as a "pseudo-corporation." You should check with a competent tax attorney on details.

Here's where such a program should be employed: Any corporation profits under \$25,000 are taxed at 30%. A 52% income tax must be paid on profits above \$25,000. Therefore, when an individual stockholder's income tax bracket is below this level, total income tax would be reduced if stockholders elected to be taxed as a pseudo-corporation. In some cases, taxes would be lowered even if stockholder tax rates were above those corporate income tax rates.

This new tax regulation makes the corporate organization much more desirable than it was previously. Many will want to incorporate rather than set up a partnership. The income tax rates now become similar to individual or partnership ownership. Liability and other considerations are often much more desirable under a corporation.

There are any number of ways a farm family can transfer farm property. However, legal complications for each of them are such that a competent attorney should always be consulted. It is essential that all parties involved clearly understand all aspects of the transfer method selected. Final decisions should be worked out and recorded as a legal document for future reference.



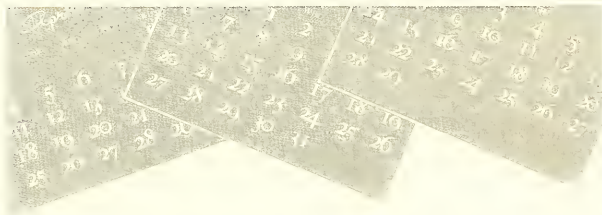
Reprinted by permission from *Nation's Agriculture*. Author: Richard B. Hunt

February-March, 1960

Hanging from Coast-to-Coast in 1961



Another outstanding calendar painting exclusively for the FFA by nationally famous artist Harold Anderson.



This attractive cover painting and the Official FFA Calendars will help keep your chapter in the public eye all next year. Be the idea man for this fund-raising, public relations activity in your chapter.

FORM YOUR COMMITTEE—CONTACT A SPONSOR THIS MONTH

Remember, business firms usually order their advertising calendars a full year in advance

**A 1961 OFFICIAL FFA CALENDAR
KIT IS ON THE WAY TO YOUR ADVISOR
NOW.**

FOR more information
WRITE



The National
Future Farmer
Owned and Published by the Future Farmers of America





*Look, compare . . . you'll
be a Massey-Ferguson man!*

“BOY! AREN'T THEY BEAUTS?”

*Ag students put
Ferguson System tractors
through their paces*

You see here the lively start of an ag students' Field Day at a Massey-Ferguson experimental farm. These bright young farmers-to-be came out to see for themselves what the Ferguson System is all about. What they saw convinced them that it is indeed a unique engineering achievement.

They had all heard about it. And many had had first-hand experience with Ferguson System tractors on their fathers' farms. What some did not realize was that the Ferguson System was a historical “first” that revolutionized power farming.

It was first to employ hydraulics and 3-point linkage to integrate tractor and implement into a single, highly maneuverable, precision-controlled work unit.

It was first to eliminate fuel-wasting excessive tractor weight, yet provide all traction needed by transferring the soil's resistance to extra weight-pressure on the drive wheels.

The boys knew the Ferguson System has been widely imitated. They wanted to know why it is still regarded as the most efficient, the best engineered in power farming. For what they found out, turn the page.



The boys asked:
**“WHAT MAKES
 FERGUSON SYSTEM
 TRACTORS DIFFERENT?”**

Just watching the big Massey-Ferguson 85 work its 5-bottom fully mounted plow, the boys could see the big difference in performance the Ferguson System makes. But when they asked *why*, they discovered it's not just one reason, but a lot of superbly engineered refinements and innovations that add up to the never-equalled Ferguson System.

It's the unique way the Ferguson System automatically maintains draft in all soils for precision plowing and tillage. And no other system provides such quick, accurate control of implement position and response.

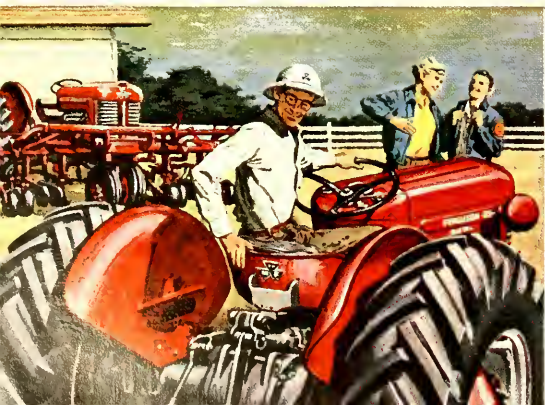
It's the Ferguson System's exclusive method of weight-transfer-traction that gets more work power out of every horsepower, without fuel-wasting excessive tractor weight. This too makes heavy-duty Ferguson System tractors as maneuverable and easy to handle as ordinary light-duty tractors.

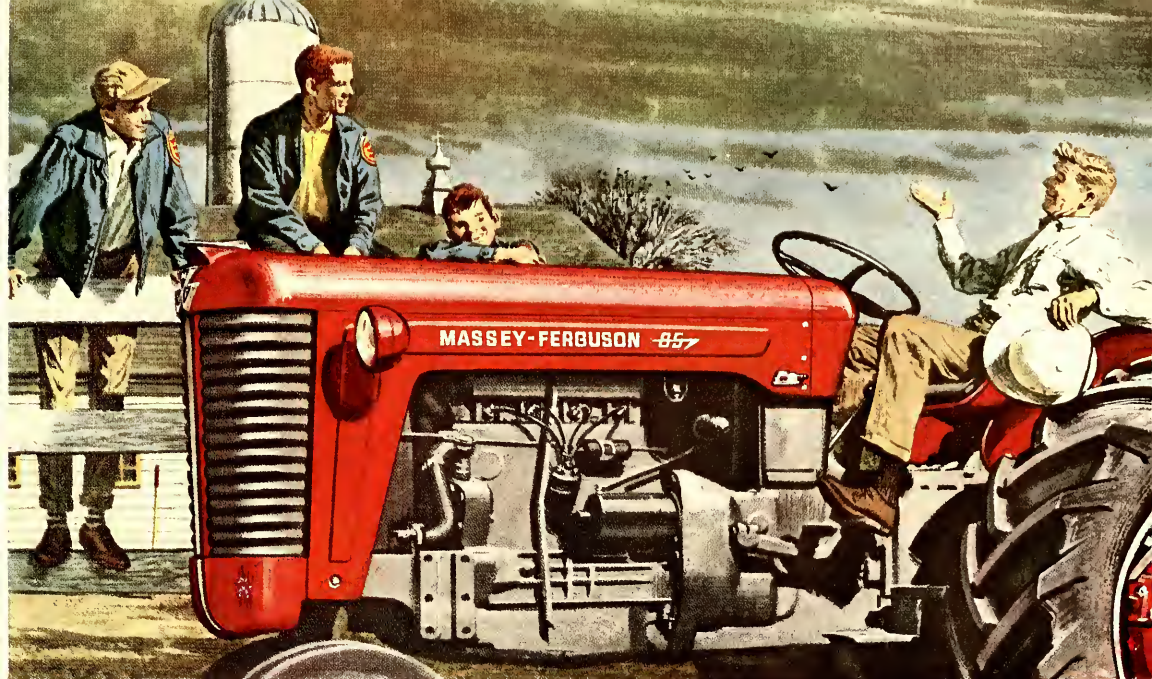
It's such engineering refinements as the Ferguson System's hydraulic pump that pumps oil only when a change is needed in the draft control, compared with hydraulic pumps on comparable tractors that pump oil constantly. The power saved goes into extra work power.

It's the small but important details that reflect the engineering simplicity of the Ferguson System, and the boys discovered that these are just a few examples of what makes Ferguson System tractors different . . . and great!

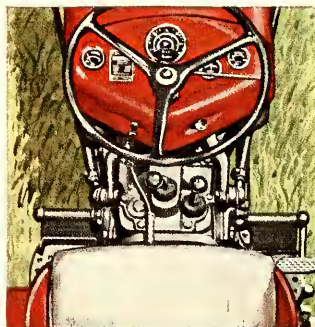
Versatile 3-plow power. The boys found there were years-ahead Ferguson System tractors for every power requirement. Here in the 3-plow class is the MF 50 (below, left) in 4 front-end models, equipped for rear, front, or mid mounted implements, in gas or LPG. The world-famous Ferguson 35 is available in gas or diesel power.

The boys marvelled at the biggest powered Ferguson System tractors: the all-job 4-plow MF 65 and the 5-plow MF 85 shown here working the Massey-Ferguson front end loader. These big tractors are engineered to do so many light and heavy jobs around the farm so well and so economically, they're the ideal tractors for medium size and large farms.

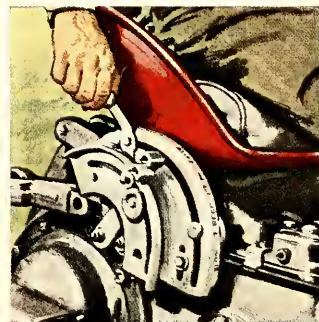




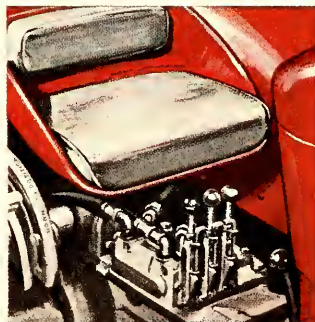
One easy step and you're up. The convenient, safe way. No climbing up over implements from the rear.



Everything in the easy-reach zone. No stretching, no fumbling, no straining—you can keep your eyes on your work.



Finger-Tip Controls. A single, easily reached quadrant controls implement's draft, position, response.



Foam-Float Contour Seat. Positioned ahead of rear axle. Cushionlike; weather-proof. Moves fore and aft to fit any driver.

New kind of work comfort

By day's end the boys had discovered another great advantage of Ferguson System tractors. After driving them, watching them work all day long in the fields, they could see that here were tractors thoughtfully engineered in every detail with the operator's comfort and convenience in mind.

The boys saw that here were tractors that delivered big work capacity, but did it with a new kind of hour-after-hour working comfort. One of the older boys summed it up this way: "The people who designed these Ferguson System tractors took into consideration the fact that a man only has two hands and two feet, and that a hand or foot should only be expected to do one thing at a time, without reaching or straining. They located the tractor seat ahead of the rear axle . . . a comfort zone in any vehicle. Maybe these facts sound simple, but you only have to drive a Ferguson System tractor and compare it with others to see the difference it makes."



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Pace-Setter of Modern Farming . . . World's Most Famous
Combines and the Only Tractors with the Ferguson System



This young couple's future dairy success depends on a good foundation herd.

How to Select

Foundation Animals

Here are tips on starting your dairy herd.

AMERICA'S Star FFA Dairy Farmer says a foundation dairy animal is one which will be the basis for building a future herd.

If you're a dairyman that isn't news to you. But if you are *planning* to enter the dairy business, it could be priceless information. Why? Because your future business success and level of rural living depends on an intelligent selection of foundation animals.

Star Dairyman Philip Yetter of Newton, New Jersey selected three-year-olds for his foundation herd a few years ago. He says, "I wanted animals who had completed their first lactation. I

wanted at least some indication of their productive ability."

This isn't always possible. Three-year-olds with their maturity and partially proven production are more expensive than younger animals. Not every young farmer can afford them.

Don't confuse your foundation herd animals with those raised primarily for show purposes. Yetter advises beginnings with small calves for the show ring. But he says there's too much danger of future breeding troubles to depend on them entirely for a herd foundation. Further, their lack of size and the question mark on their pro-

duction makes it hard to judge them as future producers. Going to the other extreme may be just as risky. Older cows offer a possibility of fewer offspring than you'd want.

Nobody can evaluate dairy animals like a professional. It's best to get some help in judging them. Your vo-ag teacher or an established dairyman can offer valuable pointers.

To select good foundation animals, you need to have an ideal in mind. Ask the official breed association of your choice for a scorecard with photos to evaluate your potentials. First, make sure your animals have good *type*. That is, are they representative of their breed? Check them against the scorecard as well as other animals.

In checking *general appearance*, look for more than a straight top-line, level rump, straight hind legs, and reasonably level udder floor. Look also for plenty of chest and body depth, plus width. A feminine head is another very desirable appearance trait. Besides a stylish and alert animal, you should also favor those with moderately high rumps, and those which aren't narrow in the pins or thurls. Make sure an animal's body size and development will allow her to carry a well-developed udder.

Udders are all-important. Size, shape, and attachment are prime considerations. Not many high producers have small udders. Top producers have soft, pliable, elastic udders. They have long, wide udders with uniform-sized quarters well above the hock to accommodate future growth. A crease down the center of the udder with teats hanging straight down or pointing slightly inward signals good udder attachment.

Production ability also depends on *body capacity*. High producers need plenty of storage space for feed. Sometimes young animals appear shallow in the rear flank, according to the American Guernsey Association. They may also appear long and leggy, but often develop more satisfactorily as they mature. Long, widely-spaced ribs are good body capacity indicators.

Finally, *dairy character* should be considered. That's the cow's ability to use her feed in producing milk. It takes skill to judge this quality accurately. You have to consider every part of the body. The scorecards define it as openness, angularity, animation, and freedom from excess tissue. A long, thin neck, prominent hips and pins, sharp withers, thin thighs, and a thin, pliable hide are other indications of good dairy character. And naturally, you'd like to select an animal with a good disposition.

Those are the basic secrets of selecting good foundation dairy animals. You'll learn others as you start looking. Meantime, good hunting.



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(and Chevy's cradle-soft ride shows it)

One ride in this new '60 Chevrolet will persuade you most gently that what we say is true. No other leading low-priced car coddles you with Full Coil springs at all four wheels. Or looks after your welfare with Safety Plate Glass in all windows, the convenience of crank-operated ventipanes, the polish and precision of Fisher Body craftsmanship and dozens of other refinements that make a car a comfort to own. Your dealer will be delighted to show you all the considerate ways Chevrolet has remembered you (without once forgetting about your budget):

Roomier Body by Fisher with a 25% smaller transmission tunnel.

Pride-pleasing style (combines good looks with good sense).

New Economy Turbo-Fire V8 (makes friends fast by getting up to 10¢ more miles on a gallon).

Widest choice of engines and transmissions (24 combinations in all—to satisfy the most finicky driver).

Hi-Thrift 6 (built with Chevy's famed ever-faithful dependability).

Coil springs at all 4 wheels (with the extra cushioning of newly designed body mounts to filter out road shock and noise).

Quicker stopping Safety-Master brakes (specially designed for long lining wear).

Chevrolet Division of General Motors,
Detroit 2, Michigan.



the superlative '60 Chevrolet . . . there's nothing like a new car—and no new car like a Chevrolet. This is the Impala Convertible.



Continued from page 35

—now his wife and mother of a two-month-old daughter. Joan is a farmer's daughter and former president of the Caesar Rodney High School Future Homemakers of America.

Rodney talked a lot about the herd and his plans. "We're milking 44 right now," he points up, "but a 55 or 60-head milking herd isn't too far away—I hope. A 10,000 pound herd average would look good too, since it's only 9,100 now."

But Rodney says Ayrshires aren't supposed to produce many fabulous yields. He prefers the breed for other reasons. "They are consistent and efficient milk producers," he says simply. "They return a good profit per animal and I like them. We keep all promising heifers and maintain one breeding bull. About half the herd is bred artificially."

The young farmer's share of the 76-head herd (Miss Virdin inherited one-half of the animals) is worth nearly \$11,000. But their impressive value brings no "special treatment" unless they produce! Rodney feeds according to production, checking each individual's yield before it goes into the new bulk tank. Later, a portable "dumping station" will be added to the milking parlor. A "dumping station" is similar to a pipeline system in that it eliminates trips to the bulk tank. But, unlike a pipeline system, he will continue to hand-pour each machine's contents separately.

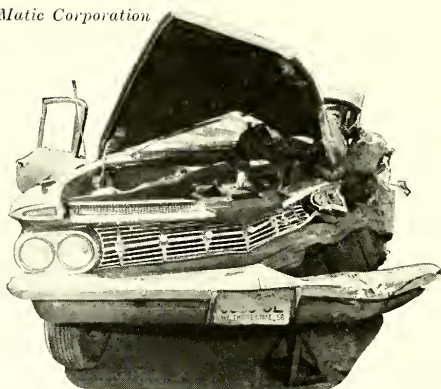
With 290 tillable acres, Rodney also has space for a cash crop. Last year he grew 80 acres of soybeans. He often has extra hay for sale.

His three years of service as a Delaware state FFA officer has prepared the gifted young farmer for countless leadership positions in his community. He is now an officer of the local Grange; member of the board of directors in the Southern States Farmers Coop; member of the Ayrshire Breeder's Association, the Dairy Herd Improvement Association, Artificial Breeder's Coop, State Fair Association, Farm Bureau, and the Interstate Milk Producer's Coop.

Some would say Rodney Caulk owes his start in farming to the whims of fate and a large inheritance. But, to those who know him, this is only part of the story. Young Rodney has always liked farming. His father noticed this keen interest many years ago. He encouraged it by making small payments for special jobs which Rodney did well. The money was spent on farm enterprises which resulted finally in 15 acres of corn, seven acres of oats, and a dairy heifer—Rodney's first vo-ag projects.

He says, "I have wanted to be a farmer for as long as I can remember. I was born and reared on this farm. I expect it to always be a part of my life." ♦♦♦

Photo: Protect-O-Matic Corporation



Don't let this happen to you. Brush up on these winter driving hints.

Don't be a . . .

Wintertime Fender Bender

FEW STOP to think about it, but safety experts back up this statement: Slippery highways *can't* cause accidents. It's "driver error" and mechanical failure that are really to blame for the mishaps blamed on slippery roads.

Your safety rides on the depth of tread in your tires, the presence or absence of sand and a shovel in your trunk, your *knowledge* of winter driving techniques, and your willingness to obey posted speed limits or other regulations.

Seiberling Rubber Company researchers in cooperation with the National Safety Council offer these basic rules of highway horse-sense for winter.

Know the weather forecast before starting any trip. And learn road conditions by trying your brakes occasionally before you reach heavy traffic. Discover ice before it's too late.

Check your car's condition. Here's a minimum list for safety: Anti-freeze, battery, brakes, tires, wiper blades, heater and defroster, muffler, and chains.

"Jackrabbit" starts on slippery pavement are risky. When starting on ice, it's wise to use second gear.

Follow others at a safe distance. Without snow tires or chains it takes three to nine times as far to stop on snow and ice as it does on dry pavement.

Pump your brakes to stop on slippery streets. A rapid, light pumping action is best. It will keep your wheels from locking and turning your car into a sled.

When going into a skid: Turn your steering wheel in the direction of the skid—the same direction the rear of your car is headed. Don't apply brakes until the sideward motion is ended or

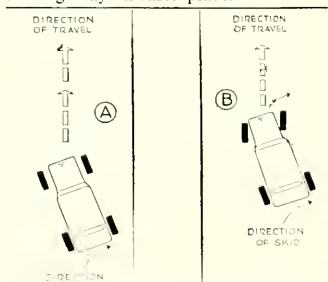
you will actually increase the skid. Instead, continue mild acceleration.

A pail of sand and a small shovel are *must* equipment—and may save you a towing bill—if you drive over ice and snow.

If you do get stuck in a snowdrift, use the shovel first. Then rock the car back and forth, shifting gears from reverse to forward and back. Continue this action, enlarging the length of tire tracks a little each time, and you can often free the car.

These pointers should make winter driving more pleasant, as well as safer. Seiberling's movie, "How to Drive on Snow and Ice," which is loaned free to schools and safety-minded organizations, has won an award from the National Committee on Films for Safety.

So, these are award-winning tips. As for your driving, will it be worth an award this year? If your car is in proper condition, if you have all the knowledge you need for safe winter driving, and if you CARE enough to use the knowledge you have, you deserve an award, you're helping to make our highways a safer place.



If auto skids (A), turn front wheels (B) in direction rear is moving. Do not brake until skid is corrected.

PASTURE

cuts dairy

feeding costs by

$\frac{2}{3}$

New Jersey experiments show that pasture for dairy cattle cuts costs to less than a third those of straight grain and roughage feeding. Lower feed cost is just one reason why many farmers are looking to pasture for extra profits. Other examples of pasture benefits:

Saving in labor—Each man-hour spent in pasture production returned \$23 in North Carolina experiments, compared with less than \$4 for corn and less than \$6 for wheat.

Water conservation—Missouri tests show that four times as much water was lost from sloping cornfields as from alfalfa on the same plots.

Reduction in equipment expense—Pasturing livestock eliminates the need for much expensive machinery and equipment.

Erosion control—Missouri researchers report 400 times the soil loss from sloping cornfields as when the same land was planted to alfalfa.

Wide management choice—Pasture can also be cut for hay, grass silage or seed if needs dictate a change.

Many research reports from across the nation cite the advantages of renovated permanent pastures or improved pastures in a crop rotation scheme. Pasture lands often produce more total digestible nutrients than the same land in grain—and at far less cost.

We'd like to send you a new, free book, *Pasture—How to Reduce Feed Costs*. This book reports many research studies which show how livestock feeding on pasture gives extra profits. Further than that, the book tells how to renovate pasture. It describes methods for lengthening the pasture season, grazing techniques and recommended forage varieties for every section of the country. It's chock full of information which every farmer or potential farmer will value. You can use it for speeches, group topics, discussions or just reference. Why not send for your free copy today?

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Scraps used in making this cart included old tractor hood, cultivator wheels, discarded pipe, harrow bars.

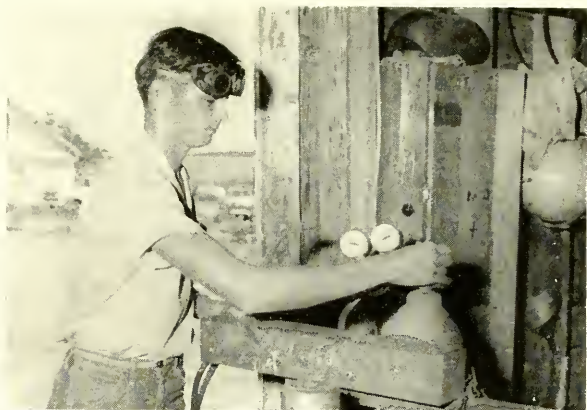


Jim helped build this poultry house, then did all the electrical wiring.



One of many farm gates Jim has built from old metal and discarded wheels.

Handy water hauler was made from a surplus jet engine shipping container.



Oklahoma's Farm Mechanics winner plans to install new gas generator.

Saving with Shopwork

DAD, WE COULD probably save a lot of money if we had our own farm shop," thoughtfully remarked Arthur J. Scheffler, Jr., on a winter night.

"You might be right, Jim," his father countered. "If it just didn't cost so much to build one."

The story might have ended on that cautious note if Jim hadn't been both persuasive and practical. He convinced his father that a farm shop would pay for itself in time and money saved.

Jim and his father built the shop without professional help. Afterwards Jim wired the 18 x 26-foot structure for electricity, a skill he had picked up through supervised training in Donald Hensley's vocational agriculture classes at Hitchcock, Oklahoma.

Since then, Jim has kept the saws humming and the welding tips busy. Besides maintaining a farming program with enough teeth to win a State Farmer Degree, he has done enough shop work to pay for the building, make farm work a lot easier, and win Oklahoma's 1959 Farm Mechanics Award.

This far-sighted Future Farmer and his father now overhaul practically all their farm equipment, from tractors to trucks. Jim has drawn most of the responsibility for servicing and maintaining engines and equipment.

The Schefflers buy oil and fuel in bulk to reduce costs still further.

You'd have to call the Scheffler's shop an economical unit. Most of the equipment was fashioned from scraps and pieces of discarded metal. But it's a practical and efficient "service center," too. With both gas and electric welding units, Jim can tackle any ordinary repair or construction job.

Jim's money-saving ability in the shop results from a combination of ingenuity, training, and stick-to-it-iveness. Take the eight steel gates he's built from wagon wheels, drive chains, and old rods. Or the three ensilage feeders made of 55-gallon barrels cut in half with legs fashioned from truck rims, old combine cylinder bars, and discarded harrow bars.

Then, there's the farm tractor dozer he made by cutting a used grader blade to size. It has walking plow beams for arms and an old auto steering mechanism to control raising and lowering. And Jim's mighty proud of the 8 x 13-foot sheet metal truck bed he made with six-inch channel iron cross pieces.

Skids made of worn-out tractor rims were attached to an aging steel pickup bed in his busy shop. With some up-right separation bars, it made an excellent cattle feeder. A few discarded harrow frames welded end-for-end with pipe rungs made a handy 14-foot steel ladder. Jim improved the farm's appearance by making an attractive mailbox stand from an outdated horse cultivator and some odd-sized pipe.

Jim doesn't like to be regarded as a "putterer." He has shopwork down to a science. "I wear protective clothing when working with power equipment and use guards on power shafts. I never weld without helmet and gloves. Goggles and gloves are standard with any grinding, chipping, or oxyacetylene welding chores," he says.

Jim is one of many Future Farmers who learned by doing, believed in his own abilities, and used vocational agriculture training to improve the value and efficiency of his home farm while still in high school.

ANOTHER FRESH ONE FROM PONTIAC

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For unmatched action, tap the resources of the Tempest 425 with Tri-Power! This fiery, famous power plant is one of a wide range of power packages available in the 1960 Pontiac. Every one is a finely

honed version of the 389 cubic inch Tempest, the industry's most respected production V-8, and one (the 425E) is designed to perform on regular gas.

Tie this Tempest-tended performance to Pontiac's *exclusive* Wide-Track Wheels . . . and you've got the most exciting and road-wise passenger car you've ever hustled or handled.

See your Pontiac dealer soon. Rev up a Fresh-Point-of-View Pontiac and put it through its paces. You'll heartily endorse it as the most satisfying production passenger car of 1960.

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Those "Pesky" Questions

Quiz shows and final exams are nothing compared to the judges'

unrehearsed, unpredictable questions in an FFA speech contest.



National FFA Public Speaking winner Rousseau spent as much time on possible questions as in speech writing.

A CONTESTANT in the FFA Public Speaking Contest has to know more than the words to his speech. After he finishes his delivery, three competent judges take the limelight. They spend five minutes asking questions to find out how much the contestant really knows about his chosen subject. Judges in FFA speech competition are usually well trained in agriculture or education. Often they are recognized authorities.

"But they're not trying to trip you up," insists Future Farmer Phil Rousseau of Tacoma, Washington. He feels judges are genuinely interested in giving first place to the most deserving speaker. "They only have a few minutes to ask questions, and must make each one count," he says.

Rousseau recently won a public speaking contest—the national FFA finals in Kansas City! He's an excellent public speaker, knows how to use gestures effectively, and makes a good appearance. But he couldn't have reached the national finals without knowing quite a bit about his subject, "Food For Our Nation." Rousseau realized from the first the importance of his questioning period. So he kept track of all references used in preparing his speech. Magazines, books, speeches, and quotations were painstakingly listed in his notes. Later he would return to review their high points.

He spent as much time preparing for questions as in preparing the speech itself. Time and again, Rousseau pored over his manuscript looking for question possibilities. He asked his ag teacher to do the same. When they came to a possible question, Rousseau made a note of it and looked for an answer. He recited his speech to family members many times, and everyone asked any questions which came to mind. "It was practice, practice, and more practice," Rousseau admits.

"I talked with other teachers at high school," he says, "after all, teachers are thinkers and can help train your thought processes. Planning your thoughts and ideas beforehand is absolutely necessary to answer surprise questions."

The National Champion feels that any speech can be researched well enough to cover most of the likely questions. "For instance, I was always expecting a question on surpluses," he recalls, "so I tried to become a 'temporary expert' on the subject."

Rousseau's ag teacher recommended several books and pamphlets. The 17-year-old Franklin Pierce High School senior spent a lot of time in the library.

But in the final analysis, your score depends on how well you perform on stage. Your answers to the judges' questions—whether you expect them or not—are what count.

"Stop and think, before beginning your answer to a question," Rousseau advises. "Be sure you understand the question in its entirety. If you don't, ask the judge to repeat it. If you are confident, be authoritative. If you are unsure, don't bluff. A flat 'I don't know' can hurt, but it is much better than a meaningless string of words. One judge hit me with a tough one at Kansas City. I couldn't answer it, and told him so."

Rousseau advises getting to the point immediately. "Tell all you know about the subject without 'padding'"; he says, "refer to books or magazines which you have read when possible. Quote authorities if you can, but always be as original as possible. Don't be afraid to give definite opinions of your own."

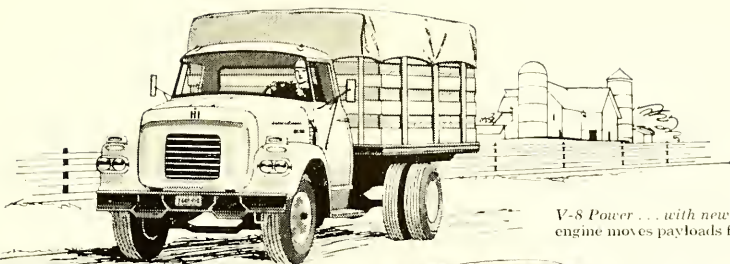
Rousseau prefers the "discussion type" questions. He likes to make room for opinions and general statements. Even questions which can be answered with a simple "yes" or "no" usually get the "discussion treatment" from Rousseau. "I try to explain why I say yes," he says, "but it never pays to deliberately 'run out the clock' with a judge."

Remember, when five minutes have passed—and a timekeeper will let you know—it's your privilege to sit down even if you're in the middle of an answer.

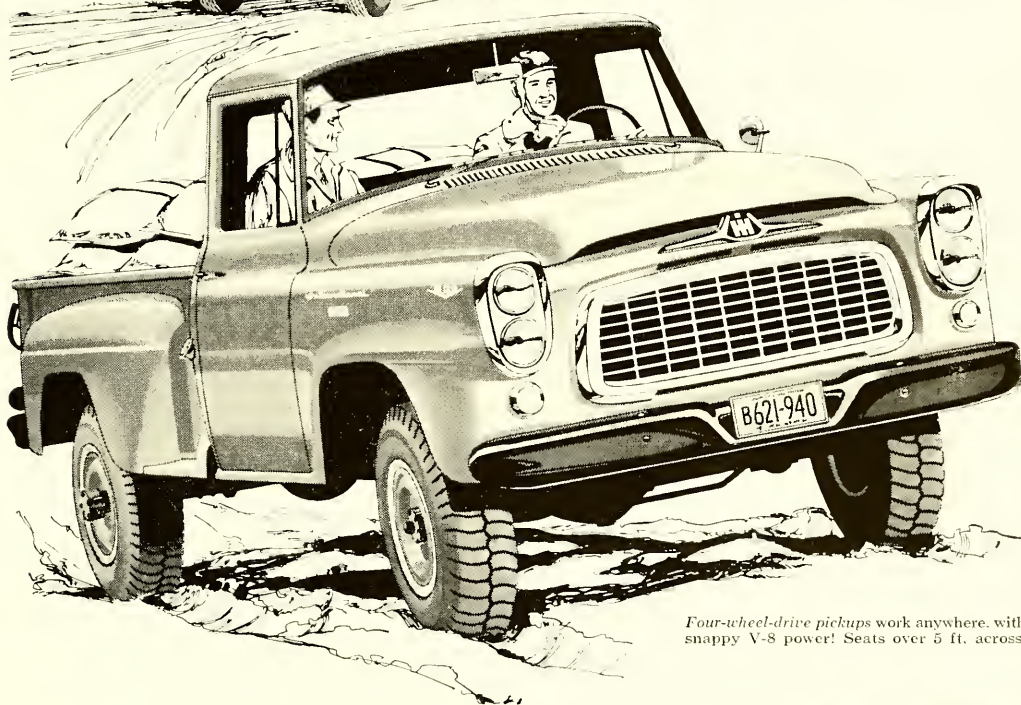
Questions are vitally important in public speaking. They are the judges' tools for determining your right to speak on a given subject. Cooperate with the judges, for questions are also your best means of proving that you are an expert in your field.

EDITOR'S NOTE—If you would like a reprint of this article for your vo-ag notebook, send 10c to Reprint Department, The National FUTURE FARMER, Box 29, Alexandria, Virginia. We'll also enclose a free checklist for judges which you can give to local, district, or state judges.

The National FUTURE FARMER

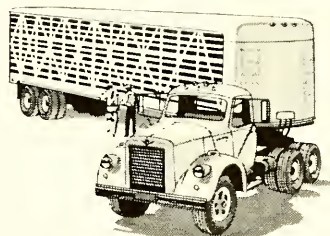


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Farm jobs require "all-out, all-day" truck performance. INTERNATIONAL delivers it.

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PAROLED

...not pardoned



REPRINTED BY SPECIAL PERMISSION FROM WYOMING FFA NEWSLETTER. WE HOPE THESE WORDS FROM AN IOWA JUDGE WILL HELP EXPLAIN THE VAST DIFFERENCE BETWEEN PAROLES AND PARDONS.

—THE EDITORS.

By Merlin F. Sailor

THE JUDGE was sentencing two high school boys who had thoughtlessly made a practice of "borrowing" automobiles to go joy-riding. The following remarks were made during the sentencing of these young men.

"Now you have been convicted of a felony. A felony is a crime for which you might be sent to the penitentiary. The law gives the choice of sending you to Anamosa for one year, to the county jail for six months at hard labor, or to fine you \$300. Because you are only 16, I can send you to Eldora instead of Anamosa. Because this is your first conviction, I am permitted to give you a parole. Never again will any court have the right to parole you. But if you never see the inside of the penitentiary or the jail, you will not have escaped the penalties of your crime.

"You stand convicted of a felony. The record of your conviction will be here as long as the courthouse stands. No amount of good conduct in the future can ever erase it. Next year, or ten years from now, or when you are old men, if you are ever called to be witnesses in any court of law, some lawyer will point his finger at you and ask this question:

"Have you ever been convicted of a felony?"

"And you will hang your head and admit that you have, because if you should deny it, then the record of these proceedings will be brought up from the vaults and read to the jury. And the question will be asked of you for the purpose of casting doubt on your testimony. Convicted felons are not believed as readily as other persons.

"It may be that some day you will have a chance to get a job in one of the expanding countries of South Amer-

ica, and you will apply for a passport. You will not get it. Canada might allow you to come in for a two-week fishing trip, but you will not be allowed to stay. No country will allow you to become a resident. Your world is oh so much smaller than it was.

"Some day you may seek a position in the civil service of your state or of your nation. On the application blank you will find this question:

"Have you ever been convicted of a felony?"

"And while you go from one bonding company to another, trying to find one willing to take a chance on you, the position will be filled by some applicant who has not been convicted of a felony.

"In a few years you will be 21, and others your age will have the right to vote, but you will not. Your father may be a candidate for public office, but you will not be allowed to vote for him. You will be a citizen of your state and your country, but you will have no voice in public affairs. It may be that some day the governor will pardon you to restore your rights, but it is going to be humiliating to ask him. He'll want to know your whole record.

"Your country is calling men to the colors. Its need is such that men are being drafted. But the Army will never accept you, nor will the Navy. You may serve your country in a labor battalion, perhaps, but never behind the guns.

"I'm granting you a parole. A parole is in no sense a pardon!"

Future Farmers can be proud of their past conduct record. It's one of the organization's best selling points. Let's hope this moving article will help maintain it.—Ed.

Continued from page 33

answered when he gets up there. One of the new experiences is *weightlessness*—a mystery of space where every object that is not anchored floats. At present we can attain a condition of weightlessness or *zero gravity* as it is sometimes called, for short periods of time by flying an airplane in an "over-the-top loop." Hundreds of over-the-top airplane flights have been studied at the Wright Air Development Center. In these flights the airplane climbs rapidly, hangs for seconds at the top of the arc and then descends. It's those few seconds at the top where weightlessness occurs.

Scientists have discovered that man can eat in a weightless state, but it's different from anything else they tried. To eat in zero gravity they had to insert a long tube into their mouths and squeeze the contents down their throats. The normal swallowing processes which require gravity for assistance cannot be used in weightlessness.

We know that an intense radiation belt exists in outer space. It is called the Van Allen belt after Dr. James Van Allen, University of Iowa physicist, who discovered it. Dr. Van Allen doubts that man could withstand such heavy amounts of radiation as now exist beyond earth's atmosphere.

Other scientists point out that the Van Allen belt doesn't begin until 500 to 600 miles up and that the Mercury project will only be at an altitude of from 100 to 140 miles. For travel into the deeper reaches of space, a polar launching to avoid the radiation belt might be necessary.

In addition to cosmic radiation, our space traveler must contend with meteors; tiny pieces of space garbage traveling at fantastic speeds. Most are too small to affect the capsule. But a large meteorite could penetrate the tough protective plate of the space vehicle causing serious damage. However, scientists claim there are few large meteorites.

In the Mercury project, the astronaut will have little time to be lonely. He will have constant radio communication with his earthbound companions as well as having the responsibility of reporting his reactions to earth. On longer flights, *loneliness* may become a problem! In studies, volunteers show some reactions to long periods of quiet and loneliness. Later, after a number of such tests, some can remain in the chamber for periods up to a week without any apparent ill effects.

Man has certain attributes which set him apart from other earthbound creatures. This is reflected in his curiosity which constantly asks him what lies beyond the blue sky. Space flight is merely an expression of man's well-known pioneering spirit—only this time the direction is up. ♦♦♦

The National FUTURE FARMER

WHAT?

use a hog feed
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ARSANILIC ACID...

**Why, that would be like selling my corn
for less than market price!**

I keep records. And I get my lowest-cost gains with good hog feeds and supplements fortified with Arsanilic Acid—just like Purdue University has reported for the last three years.

Yes sir . . . Arsanilic Acid makes my feed work harder . . . and my pigs grow faster and cheaper.

My feed man tells me that they are getting fewer trouble-shooting calls from hog producers . . . since they added Arsanilic Acid to their hog feeds. Pigs are healthier. Guess that's why they make such low-cost gains—make more profit.

And that's why I want Arsanilic Acid in all my hog feeds. So I can make more money!

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Bea and Jess' young son seems to like this mailbox, a product of his father's shopwork.

Jess and his father have an unusual combination, dairy and beef animals. They own 73 Holsteins and 174 bees.



Prosperity at

Starvation Mesa



Corn silage is basis of the Gretts' feeding program. Starvation Mesa's dry climate is good for silo storage.

The Gretts started field chopping alfalfa this year to improve roughage quality and machine efficiency.



BEATRICE AND JESS GRETT live in a modest farm home near Olathe, Colorado. Their neighborhood is sometimes called, "Starvation Mesa" by local residents.

"That's because the area is famous for its farming failures," explains State FFA Advisor M. G. Linson.

Local farmers also have a special name for the soil. They refer to Olathe's tight, adobe clay as "dinner bell soil." Both of the odd "nick-names" have been around for a long time. No one is really sure how they got started. But American Farmer Jess Grett thinks the "dinner bell" name caught on when farmers learned the soil was usually too wet to plow before dinner and too dry afterwards.

Neither of these discouraging names has hampered Jess' farming plans. He's in partnership with his father, Jim Grett. The 20-year-old 1957 Colorado Star Farmer has inked an agreement with his father which combines the production of their 245 acres, 80 of which Jess owns outright.

Vo-ag teacher Ralph Wilson helped Jess overcome the curse of "Starvation Mesa." For three years Mr. Wilson recommended special tillage methods and an organic matter program for building up the stubborn "dinnerbell soil." With the formation of their partnership in 1956, the Gretts joined the local Soil Conservation District. A 78-acre land leveling program resulted in moving 24,500 cubic yards of tight

adobe clay. Now the tract is divided into six neat sections, joined by a 1,000 yard concrete irrigation ditch, built by the Gretts' own hands.

Jess' land and buildings are worth over \$19,000. His share of 73 Holsteins, 45 beef animals, 11 swine, 40 laying hens, and three beehives was valued at over \$26,000 on his American Farmer Degree application. His net worth approached \$35,000. He and his father have since added 25 milkers to the dairy herd. A bank loan is helping them modernize the dairy barn with a new pipeline milking system.

The Gretts have a simple goal—to upgrade the soil and reach top production at the same time. Nothing is wasted in their operation. All corn is ensiled, small grain is cut with a binder and threshed, and straw is used as bedding or turned under as manure. They have an effective irrigation system and a large stock pond for possible water shortages. A nine-acre barley cash crop rounds out their program.

Jess began vo-ag work in 1953 with five beef steers and seven acres of corn silage. He made a little over \$800. Income dropped to \$350 the second year, but ballooned to \$1700 when Jess was a high school junior. His total vo-ag income stood at \$14,730 last year.

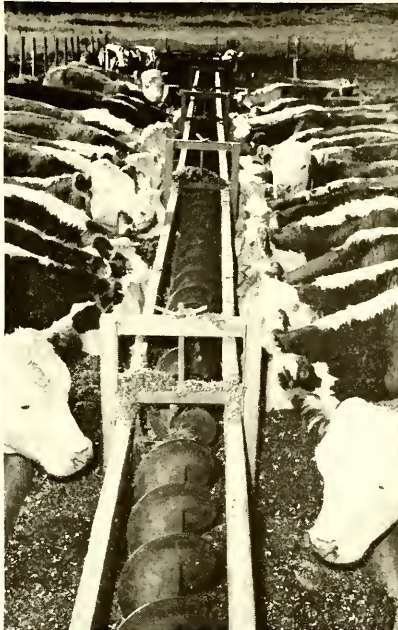
Now a member of the Farm Bureau and local milk producers association, Jess and his attractive wife Bea are

Continued on page 60

The National FUTURE FARMER



For an investment of around \$700 in motors and materials, Art Linder and his son, Paul, of Hartley, Iowa, press buttons and feed 250 to 300 cattle in 10 to 15 minutes. With Stilbosol in the ration, the Linder cattle average $2\frac{1}{2}$ to 3 lbs. daily gain.



Norman Erickson, Stratford, Iowa, uses electricity, motors, augers, switch panels, roughage, and Stilbosol to keep his feeding costs at 18¢ per pound. "It would take us four times as long to feed without our mechanical equipment," Norman declared. "Stilbosol gives us $\frac{1}{3}$ lb. more daily gain."



Roger L. Willrett's mechanical feed-handling system (Malta, Ill.) allows him to deliver his grain-roughage ration to 250 head in 10 minutes. "It would take $1\frac{1}{2}$ hours by hand, 45 minutes by feed wagon," Roger explains.

Here's how 6 cattle feeders cut costs

These outstanding feeders use new ideas in laborsaving equipment plus high-efficiency Stilbosol rations.

by Eugene S. Hahnel



A few flipped switches put grain and roughage on a series of moving belts, which then deliver the final ration to 300 head on the Harold Alfredson farm near Big Rock, Illinois. Mechanization cuts on hour or more hand operation to 15-20 minutes.



A circular feed bunk, serviced by a traveling auger mounted in a 9" U-shaped trough, allows Ted Hebert of Pana, Illinois, to push-button feed 100 cattle in 5 minutes. "I think a fellow would be foolish to try and make money feeding cattle without Stilbosol," this efficiency-minded feeder volunteered.



Verle Hunt of Ackley, Iowa, with this unique auger tube, can now feed his cattle 6 times faster than before. Verle considers his \$700 investment a bargain. Stilbosol, too. "We get an extra $\frac{1}{3}$ lb. gain a day," he says, "and, it fits in well with our laborsaving program."



Stilbosol is Eli Lilly and Company's trademark for diethylstilbestrol premix which is manufactured and sold under exclusive license granted by Iowa State College Research Foundation, Inc., under its U.S. Patent No. 2751303.

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Regular brushings are better for a dog than too frequent bathing. Good grooming keeps canine coats in good condition and stimulates the skin.



Photos: Purina Dog Care Center

Your dog's health often depends on his environment. A little kindness might affect his work by improving such things as digestion and appetite.



Farm dogs are hard workers. Feed your dog as carefully as you would yourself, but never let him overeat. Make sure your dog's ration is a well-balanced and tasty one.



Is your Farm ...

Going To The Dogs

FARM DOGS are valuable! Fully-trained herd dogs often cost \$150 or more, and the expense of meals and housing runs their value still higher.

But most farmers realize the value of their dogs. Some even estimate it in terms of an annual salary for hired labor. Others claim their herd or flock dogs are virtually indispensable.

Whatever your view, if you have a trained farm dog, he probably represents a sizable investment. So it's just sensible economy to get as much mileage as possible from your four-footed friend.

Frequent trips to the vet's office are good insurance against distemper, rabies, and other dog diseases. It's best to obtain all preventive shots.

Your farm pet is not only a fellow laborer, but he also maintains a constant 24-hour watch over your home. Even asleep, a good watchdog is amazingly alert to danger.

Sheep, turkey, and cattle farmers are especially aware of the many duties which can be delegated to well-trained farm canines. Driving, herding, penning, and loading are only a few such chores.

It is difficult to place a monetary value on the dog as a pet. A boy and his dog is still a pleasing and common sight on many country roads. And there have been few challengers for his traditional title, "man's best friend."

Here is a set of illustrated rules designed to help you protect this combined investment and companion. If you follow them closely your dog will be more attractive, have longer life, and give more unselfish service.

Does your dog chase cars? It's one annoying habit you don't have to tolerate. Have a friend drive past your dog with a loaded water pistol and spray him in the face.



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Because of the new A to Z coating, and the higher strength special-analysis Sheffield fence steel, you can expect A to Z to last half again as long as ordinary galvanized fence. Longer, even, than the earlier Sheffield fence that has stood the test of time on farms and ranches for more than a generation.

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UP TO 20% STRONGER! Better through and through. Gauge for gauge, it combines the highest tensile strength and greatest ductility of any field fence on the market.

Costs You Less Per Year of Service

You save not only because of the longer life of A to Z fence, but also because it needs less maintenance. Sheffield A to Z fence is more resistant to weather and every kind of damage. Gives greater protection for your livestock and your property values. It makes good sense to *Fence for the Future with Sheffield.*

**"It Stands Out
 From The Rest"**
 says **VIRGIL BENTON**
 of Guthrie Center, Iowa

"I've bought quite a little and it's wonderful fence. When I was shopping around I could see there was a difference. It was more attractive to the eye... it just stood out from the rest... it's more shiny. The A to Z handles nice, stretches wonderful. When you buy you'd just as well buy the best and that's why I bought A to Z fence."



ALEX DREIER, famed radio news commentator, says "The big news in fence is Sheffield's A to Z." You'll hear him on your local radio station.



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Song of the Trail

Fiction by Edward L. Johnson

THIS WAS deep in the Arctic wilds, a thousand miles due North of Edmonton, beyond the Great Slave and Great Bear Lakes, and farther still to the White Melville Mountains that rose sharp up from the valley where the Horton River cuts its tedious trail to Hudson's Bay. The timber line, that had narrowed now to lowlands and thinned rapidly was suddenly gone and the man came out into the open.

He was a big man, more than six feet tall, yet he stood unbelievably small in the immensity of the northlands that opened about him. A hundred yards beyond the forest he paused and the huskies dropped in their traces behind him. He looked long at the steep face of the mountains then made a wide circuit across the valley and up the Horton. There was an abundance of sign in the two-day snow, and his wind-burned features glowed softly in the fading light of the Arctic day as he returned to the sledge.

He turned back to the forest and loosed the huskies from their traces and began to ready camp. He felled a spruce, leaving it rest on its four foot stump, and lopped off the top and carried the branches back to stand them from either side of the suspended trunk, forming a lean-to. He turned to the forest again and his lean, hard body swung in long even strokes as he cut a dead snag and chopped it into suitable lengths for a fire.

He took another swing across the valley. The sign of mink and fox quickened his pace and he came back to the shelter in long strides and built a fire to prepare the evening meal.

Across the valley and up the steep slope, halfway to the jagged rim where white-draped boulders rose like ponderous monoliths in a strange and unreal world, the wolverine rolled back on his rear quarters and stood up, shading his beady, near-sighted eyes with a heavy forepaw. His dingy black coat stood out like a dark blob on the high barren slope. He moved then behind a boulder and came up the far side and lay down so that only his head was visible. He watched the man and dogs until the camp grew quiet and the fire burned low, and the evil cunning that began to engulf his savage brain was known only to himself.

Down in the forest, as the fire burned to dull coals and the Arctic night became liven with sound, the man was suddenly awake. He heard the huskies snarling and could feel them against the loose branches of the shelter, and a tingling of fear climbed up and down his spine. He groped frantically for the rifle, and finding it, came out into the night. The blackness of the forest was oppressingly close. The dogs backed against his leg and he could feel them trembling as he thumbed back the hammer of his rifle.

He blinked frantically until his eyes adjusted themselves to the semi-gloom of the night, then searched the white forest floor, but found no movement. He blew the coals to a blaze and piled on wood until the flames leaped high into the night. He crawled back into his shelter, but his mind, groping frantically for the cause of the disturbance and the fear that had so suddenly filled the two savage huskies, kept him awake,

and he re-fueled the fire twice more before he slept.

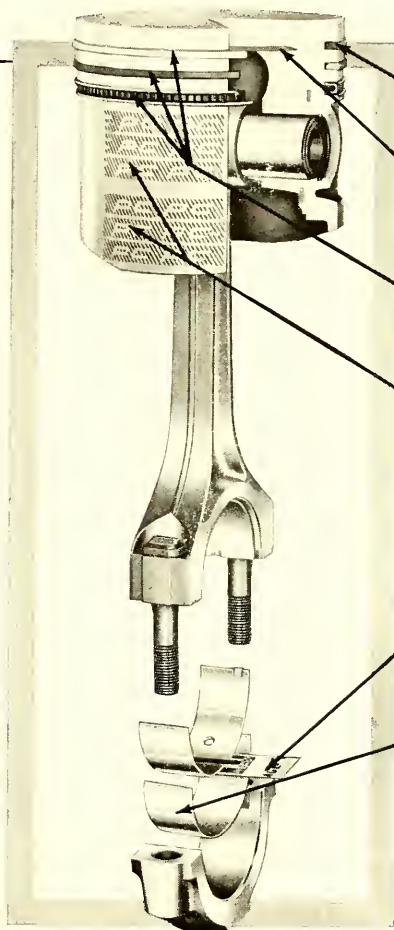
The man was up with the dawn and circling his camp. Hardly a dozen paces beyond the burned out fire he found the sinister padded print of the wolverine; and the tingling of fear that had climbed up and down his spine on the previous night came back again. The trail circled completely about his camp, swinging in on the downwind side almost within springing distance of his shelter, and the monstrous, long-clawed impressions warned him of the struggle that was to follow.

He broke camp quickly, and piling his gear into the sledge, turned south. He back-trailed a mile to an abandoned cabin that he had passed the previous day and began to set himself up for the winter.

Two days he spent repairing the cabin and making it ready for the bitter season that was already upon him, and two days he spent scouting game trails in the forest that swept out to the west and south and thinned at last to bleak, wind-swept barrens, before he began the tremendous task of laying out the steel. And not until he had set the last trap and turned back to his cabin did he realize that the trail of the wolverine had shadowed his every movement.

While bitter winds swept down from the north and snow piled deep in the forest, the wolverine slept in warmth and security far back beneath the frozen face of the White Melville Mountains. There was no need to hurry. The winter was before him. Twice during the past week he had drifted South to pay casual calls on the new trapline, but

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PERFECT CIRCLE

Hagerstown, Indiana

In Canada: Dan Mills, Ontario

the time for his scheduled devilry was not yet ripe, and on each occasion he had contented himself with the spoils from a single catch.

This petty pilfering might have gone on for many weeks yet had it not been for the deadfall. But when the wolverine found the massive structure in the trail that night he knew that it had been

set for only one creature—himself. It was the trap that the Indian had used on wolverine for ages past, and he had seen them many times.

His evil eyes were suddenly green in the shadow of the forest night and his great barrel chest swelled and rumbled with hate. He lunged out and charged down upon the trap as though it was a living, breathing creature. His heavy forearm flashed with terrible speed and swept the figure-four trigger mechanism from beneath the weighted log and it crashed down with a grating sound onto the empty neck-breaker pole beneath it. He assailed it then with fanatic fervor and began to scatter it about in the forest.

Where the trail cut down to a small stream and wound close beneath a great overhang, the wolverine came upon the first catch of the night. With the fury of a furry devil he scattered it piece by piece until its rich fur flecked the forest with black. He moved on to destroy another set, then another and another, until the sky turned gray in the east and the dullness of Arctic day crept down about him.

The wolverine was suddenly tense. The bristles along his spine were erect and he rolled back, still clutching a half-demolished trap in his flaring, blood-stained jaws. There had been no scent or sound, no visible warning of the approach, yet somehow that mysterious sense of the wild that science is yet unable to explain had warned him that he was being followed.

He broke down a sharp incline and crossed a tiny run, then came up the rolling slope on the far side and melted into the shadow of the dense forest beyond. He held to his rolling lope. Twice in the next hour he crossed the trapline trail, but his course was set and he did not pause until the trapper's cabin loomed up in the trail before him.

If the man had not made a sudden decision there in the forest, he might have returned to his cabin in the blackness of night to find himself completely devoid of food and supplies. But when he saw the deadfall he knew that he

had only two courses to follow, and the next mile of trail convinced him. Either the wolverine must be run down and killed, or he must pull his traps and move on to new territory. And if the wolverine, dashing frantically toward the cabin with the thought to destroy and despoil, could have known of the man's decision, he probably would have been glad that he had chosen the former.

The man, like the dusky devil who had barely an hour's lead on him, was suddenly oblivious of the trapline. He saw only the trail of the wolverine, and his heart thumped in his chest as he clung to the rugged course and sought to match the pace that the creature he followed had set. When he realized that the trail had pointed to his cabin, he forced his weary legs to even greater speed.

Ordinarily the wolverine would have spent many hours in and around the cabin, even though he had accomplished his end in little less than an hour. But again it seemed that mysterious sense that directs the paths of the forest creatures was on the side of the dusky devil. And when the man came cautiously across the cove to the open cabin door, with rifle cocked and ready, he saw only the flash of a shadow in the black spruce beyond the cabin and the wolverine was gone.

Curled in his lair far back under the frozen face of the mountain, his legs atremble and his lips curled in what might have been called a devilish grin, the wolverine slept the sleep of a satisfied hunter. Yet that unreasoning sense of curiosity, that drives both man and beast into acts of undue daring, controlled him even in slumber, and he came out of the den and was drifting south long before the first light of day tinted the eastern horizon.

From a limb far up in the great black spruce just north of the cabin, the wolverine watched the man hitch his dogs to an empty sledge and move off into the North before day was yet full. He heard the huskies snarl as they winded him and heard the sharp click of a rifle

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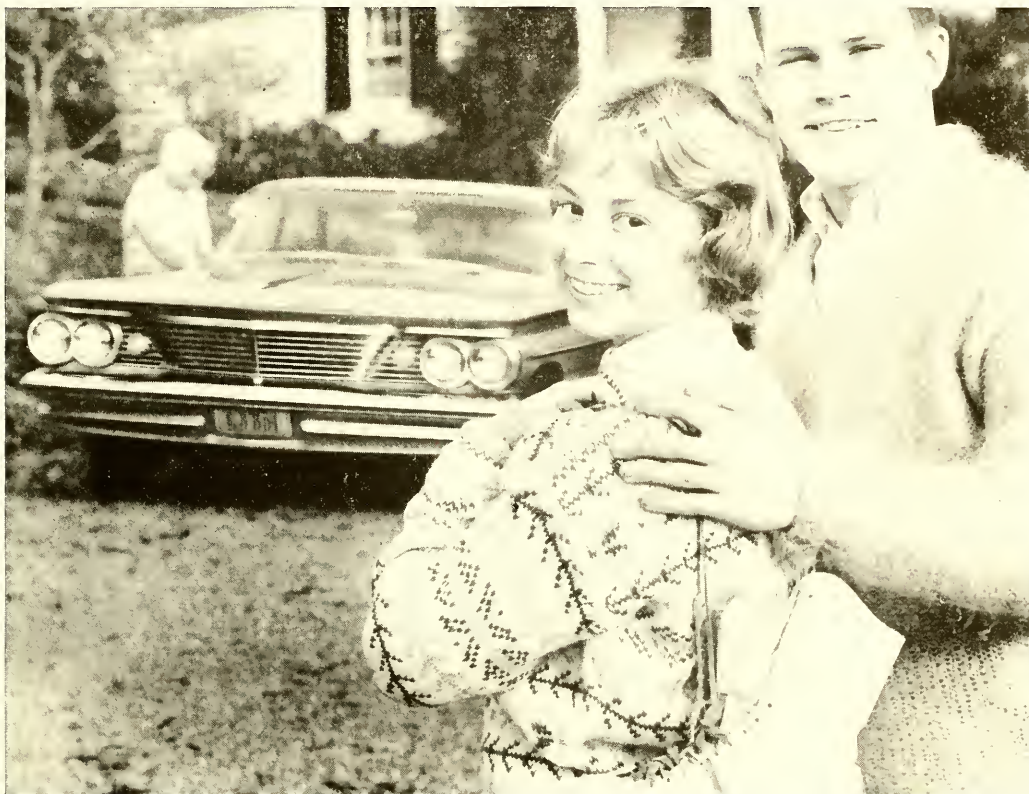
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The National FUTURE FARMER



The cars are safer... the roads are safer...



THE REST IS UP TO YOU!

"Don't worry, Mom, we'll be careful." She says it as you're walking her out to the car. And what a responsibility this means for *you*, the driver! Her folks, your folks, the parents of everyone riding with you depend on your safe driving ability and mature judgment. And their confidence is shared by the officials who issued your license to drive.

Of course a lot of people are working constantly to *help* you drive safely. Automotive engineers actually *design* safety into today's cars . . . power brakes, better suspension systems, more visibility, improved lighting. Traffic experts

contribute well-marked intersections, divided highways, grade separations and other built-in aids to safer driving.

Yes, you have a lot of help, but once you're behind that wheel, the rest is up to you! Fortunately, it's just as easy to be a safe driver as it is to be a good citizen . . . in fact, many of the same qualities are needed. You merely practice courtesy, alertness, caution and respect for the rights of others . . . and you play by the rules. In *driving* this pays off in *safety* for you and your friends . . . and in more frequent opportunities to use the car.

GENERAL MOTORS

A CAR IS A BIG RESPONSIBILITY—SO HANDLE WITH CARE!

YOU CAN WIN \$10.00

YOU CAN win a crisp \$10.00 bill by submitting the top entry in The National FUTURE FARMER's FFA Experience Contest. The two entries judged second best will each earn \$5.00 for their authors.

Just tell us in 200 words or less your "Most Unforgettable Experience in the FFA."

There's no restriction on subject matter! Your entry can deal with farm projects, home life, socials, or school activities. Tell us about anything, just as long as the FFA had something to do with the experience or helped to make it "unforgettable"

Remember, writing ability is not a basis for judging. Your entry will be judged entirely on interest and sincerity. It can be typed or in your own handwriting.

Any Future Farmer can enter. Entries cannot be acknowledged or returned and will become the property of *The National FUTURE FARMER*. Winners will be notified by mail and their entries will be carried in the next issue of the Magazine. Judges' decisions will be final.

Send entries to: The National FUTURE FARMER, c/o FFA Experience Contest, Box 29, Alexandria, Virginia.

It's your Contest! Why not enter? Do it today!

Starvation Mesa

(Continued)

planning on a long farming career. Together they have completely remodeled an old tenant house. Jess rebuilt the bathroom, put a new ceiling in the bedroom, and rewired the house for electricity. Bea did some interior painting and hung most of the wallpaper. Now they have one of the area's best-looking farm homes.

During this busy farm career, Jess developed a knack for leadership. He was district FFA treasurer, state FFA secretary, and a three-year chapter officer. He participated in a four-day FFA speaking tour of Western Colorado and served as freshman class president. While captain of both his football and wrestling teams, Jess made the National Honor Society and was vice president of the high school student council.

It's been a busy 20 years for this energetic Future Farmer, but he doesn't have any plans for slowing down.



(Fiction Continued)

being cocked as the man jerked nervously about. He came down from his lofty tower and followed in the wake of the sledge for more than an hour before he cut back to the great forest that was suddenly his own again.

For the first time in weeks he paused to enjoy the soft sweet whisper of the great pines that thrust upward about him, and when he moved again it was with caution born of the hunter and not the hunted.

This was two weeks and many, many miles of trail later. A bitter gale, that had swept the forest and barrens for two days and two nights, had fallen and a light snow filtered down, erasing like magic the two-week trails that furrowed the forest aisles.

Cutting aslant through down timber on the west bank of the Horton, the wolverine was suddenly tense. His delicate nostrils, playing the air currents that rose up from fresh footprints in the snow, told him that the trail which spread before him was not only the trail of man—but that it was made by the same man he had driven out of his domain only two short weeks ago.

In an abrupt flair of anger he whirled to the trail. In less than an hour he found the man in a little glade in the heavy spruce forest—building a heavy deadfall.

For a long time he crouched in a laurel thicket, his eyes fastened on the man. Twice he stepped forward, almost into the open, then withdrew. His body was atremble with excitement.

The man moved across to the opposite side of the glade, the huskies straying before him, and the wolverine came quietly forward. He found the rifle that leaned against a tree and dragged it into the clump of laurel. When he came into the open again he was snarling, his apparent fear of a moment ago now gone. He tore at the unfinished trap with fiendish rage.

The huskies were within a dozen paces before the wolverine saw them, and he came about, sinking back upon his haunches. His lumbering, loose-jointed body was suddenly tense and he struck with incredible speed. He found a husky throat and blood spurted in his face as his raging canine teeth met in skin and flesh, and when he released the husky it was dead.

The second husky fled before him and the wolverine found himself facing a man who was both shocked and enraged by the loss of his rifle.

Ordinarily the dusky devil would have retreated, to wreak terrible vengeance under cover of darkness; but now, the uncontrollable fury that burned out from his evil brain would not permit flight. He saw the man's hand leap down to his belt then up again, and the flash of steel was bright in the dullness of the Arctic day. He

lunged for the white throat that shown momentarily between the parka and the partially opened coat.

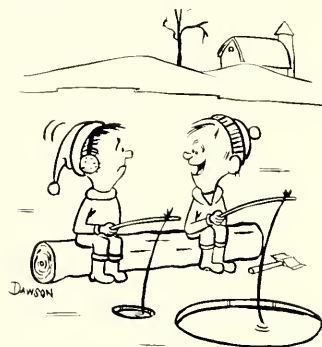
Maneuvering swiftly on clumsy snowshoes, the man was able to avoid the widespread jaws that snapped like tempered steel only inches from his throat; but a flaring forepaw found his cheek and slashed until the bone stood bare and white, then filmed with red. His arm shot out and down and the long blade of the hunting knife sank to the hilt. The wolverine screamed with pain as the knife turned.

He landed off balance and came to his feet with thick, red blood spilling out of the terrible gash in his side. There was a queer sickness in his head, then weakness that deadened the pain in his middle. Yet game to the last, he whirled, snarling hoarsely.

The man, plunging forward in intermingling haste and fright to finish the kill, tripped on the half-constructed deadfall and landed full length in the snow, his throat upturned to the massive wide-spread jaws that already dripped with blood.

Never in his many years had the wolverine known quarter for the conquered, nor was it mercy that spared the man. There was no strength for the kill. Already life flowed swiftly from his wounded body, turning the snow about him to crimson.

It may have been that the wolverine knew he was dying. It may have been also that he thought his blow had been fatal and that he was taking his enemy with him. For when the man fell the snarl left his face and his lips curled again in what might have been called a devilish grin. A red film was spreading across his vision and the winds that sang in the black spruce forest were suddenly stilled. And then, the dusky shadows in the little glade turned to night, and the wolverine, content with his devilry of the day, sank slowly and quietly to the blood-stained forest floor; the hard snow crust that would whisper no more to the soft tread of his evil pads.



"The way I look at it you have to think big!"

The National FUTURE FARMER



THIS NEW OLIVER 550

22% more pull on 9% less fuel!

OFFICIAL TEST PERFORMANCE

43.2 Test-Rated Horsepower

5149 Pounds Drawbar Pull

12.54 Drawbar Horsepower-Hours
per Gallon of Gasoline

Here's the tractor that leads every gasoline tractor in its power class in both economy and drawbar pull—leads the class average by 9% in economy, 22% in drawbar pull. In addition you get low profile, snappy performance and big workability—available with the biggest selection of matched equipment of any type of farm tractor.

Ask your Oliver dealer for a TEAMED-POWER demonstration of the new 550 with matched equipment. Get big workability plus proven economy with either gasoline or diesel engine. Ask your dealer about Oliver's special trade-in bonus—6% in cash. Then see how easy it is to step out ahead of the trend to bigger and better farming with the powerful new Oliver 550.

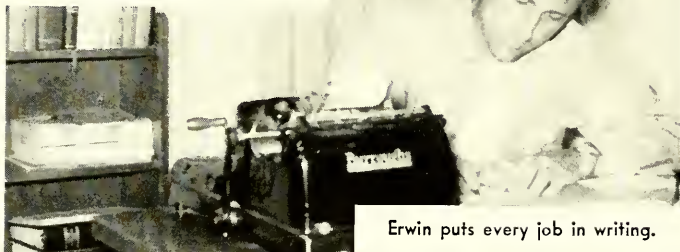


THE OLIVER CORPORATION, 400 W. Madison St., Chicago 6, Ill.

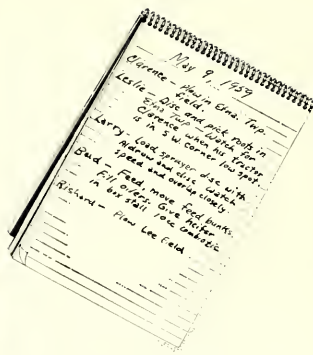
GO BIGGER...GO BETTER—GET OLIVER TEAMED-POWER



your farming!



Erwin puts every job in writing.



By Dick Geyer

TO GET AHEAD, a young farmer has to plan ahead! Planning is especially important to young men who don't have enough experience to make long-range decisions without considerable thought and preparation.

But just what is planning? "Planning is little more than taking enough time to do things in an orderly manner," says former Future Farmer Will Erwin of Bourbon, Indiana. His planning helped him win the title, "Indiana's Outstanding Young Farmer of 1957" and be listed among the top four young farmers nationally.

Erwin figures you actually *save* hours in the long run by taking time for planning. His planning is divided into three phases.

1. Day-to-day.
2. Yearly or seasonal.
3. Long range.

Day-to-day planning starts at 6:45 in the morning when Erwin hands each of his four hired workers an assignment. The written assignments, prepared the evening before, are based

on a running list of jobs, field reports, and his personal observations. Erwin thinks this procedure coordinates the farm work and makes for top efficiency.

He has to think ahead constantly to make the system worthwhile. Just providing written assignments isn't enough. The entire farm business has to be considered when each assignment is prepared. And naturally, each assignment must be flexible enough for quick changes to meet unexpected weather or emergency situations.

Seasonal planning is based on the idea that one big job should be done in each of the seasons. Spring is the time to *get the crop out* on Erwin's farm. Summer's the time to *fix up*, fall is *corn harvest time*, and winter is the season for *machinery overhaul and repair*. "Every good farmer knows these seasonal jobs," Erwin admits, "but it helps to have them in writing. That way you don't get sidetracked from the most pressing job by some minor emergency."

Long range planning is hardest for Erwin. In doing it, he mentally notes the farm's assets, limitations, and bottlenecks. One example of long range planning is Erwin's farmstead arrangement. He spent hours visualizing the efficiency of several farmstead plans and drawings. When he finally made his decision, he planned for a completely automatic feeding system to accommodate 1,000 head of cattle. "I don't plan to install the system for several years, but it's spot is already reserved on my farmstead," Erwin explains.

Long range planning means you have to keep informed too. Erwin reads daily newspapers, business papers, farm magazines, and actually "studies" at least an hour a day. This has resulted in his making plans for using "hay wafers" as soon as they are practical for production on average farms.

Planning takes time and work, but it makes for better farming.

You don't buy a "Pig in a Poke" when you invest in **WISCONSIN- POWERED** farm equipment



Model 91 McCormick self-propelled combine powered by 37-hp. Wisconsin Engine.

When leading builders of modern farm equipment install Wisconsin Heavy-Duty Air-Cooled Engines on their newest, most advanced machines . . . you know and they know that the engine must be right!

The equipment builder can't afford to take chances because the engine is the operating heart of his machine. It must be field-tested and approved by the farm machine manufacturer before final selection for his equipment.

The engine must measure up to the equipment builder's performance and quality standards . . . both mechanically and on the job. His good judgment is backed by more than 50 years of engine-building experi-

ence when he specifies "Wisconsin" as original power equipment for his machines.

So we repeat . . . you don't buy "a pig in a poke" when you invest in Wisconsin-powered farm machines.

All Wisconsin Engines are of heavy-duty design and construction. They are engineered and built to stand up to hard service and weather extremes from low sub-zero to 140° F. In addition, the engine is custom-engineered to fit both the machine and the job. And that's why it pays to specify "Wisconsin Power" for your farm machines.

Write for free copy of engine bulletin S-249. Address: Dept. F-150.



WISCONSIN MOTOR CORPORATION

MILWAUKEE 46, WISCONSIN

World's Largest Builders of Heavy-Duty Air-Cooled Engines

F-150



FUN ON THE FARM PHOTO CONTEST

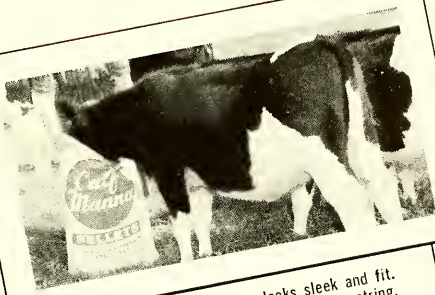
6 HEIFERS,
50 TRANSISTOR RADIOS,
1250 OTHER
BIG PRIZES!

WIN

A REGISTERED HEIFER!

(Dairy or beef breed of your choice)

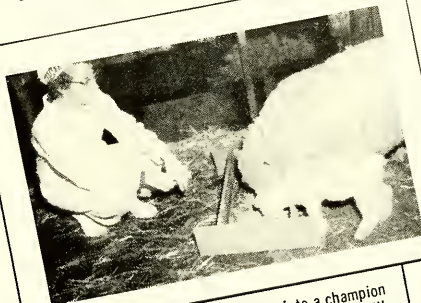
DO YOU HAVE
LIVESTOCK
PHOTOS BETTER
THAN THESE?



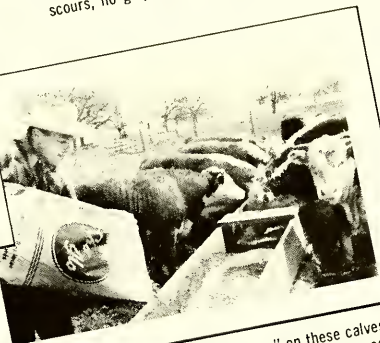
This Calf Manna-Suckle fed heifer looks sleek and fit. She's going to be a real addition to the milking string.



Here's real fun on the farm—calves love that Suckle. No scours, no gulping since they're fed from Suckle bottles.



This little girl can almost see her lamb grow into a champion with only 1/6 lb. of Calf Manna each day. The ewe's milk supply is increased with the same daily Calf Manna ration.



He's putting "milk bloom" on these calves without a nurse cow—with Albers Sho-Glo—the nurse-cow replacer feed.

Pictures like these prove it's fun to live on a farm—it's fun to feed young animals and watch them develop. Of course, feeding dairy or beef calves, hogs, or sheep on the Calf Manna-Suckle Program is more than fun. It's profitable, too. Calf Manna and Suckle produce big, growthy animals that live and pay for a long time.

Albers Sho-Glo, the new nurse-cow replacer for beef animals, is a winner, too. Calf Manna, Suckle and Sho-Glo put that extra bloom and finish on show and sale calves that holds the judge's eye.

SEE YOUR



DEALER

CONTEST RULES

Send snapshot and "Quality Controlled" seal from any Albers Calf Manna, Suckle or Sho-Glo bag, and your name and address to Albers Milling Co., Box 1882, Santa Ana, Calif. Entries must be postmarked before midnight, April 30, 1960. Snapshots become the property of Albers Milling Company. None will be returned.

Contest will be judged on originality, suitability, and aptness of subject matter based upon the "Fun on the Farm" theme. Subject to Federal, State and local regulations. Complete rules are available at your Calf Manna-Suckle dealer. Enter as many times as you wish.

(Continued from page 29)

Exports: Usually a third of U. S. wheat is sold overseas. With luck, 1960 wheat may fare as well. But Australia and France have plenty of good quality wheat for export this year. Some experts predict a serious dent in our export market. Domestic prices will probably continue to exceed world prices. Incidentally, virtually all outgoing U. S. wheat requires export payments.

Poultry and Eggs

Production: Broiler production down slightly during first six months. May inch up during last half. Laying hen numbers down three or four percent

from last year. Egg production down a little. Turkey production about even with 1959 efforts, possibly down by four percent. Production costs will remain fairly steady.

Prices: At last, conditions begin to look slightly better. Egg prices expected to be two or three cents higher during final six months than 1959's average of 32 cents a dozen. This, despite a seemingly declining egg demand. Broiler price prospects are somewhat brighter than last year's 16 cents per pound average.

Miscellaneous

Wool: The 1960 program has no revisions. Incentive price is 62 cents a pound. Support price for mohair is

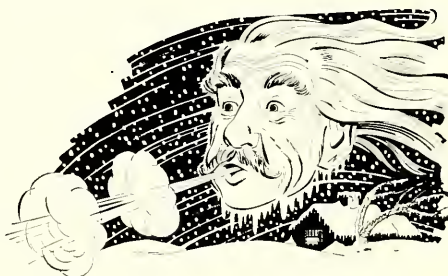
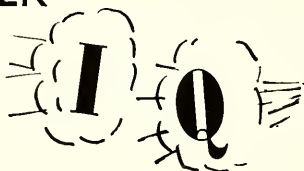
70 cents. Count on a record wool production of over three billion clean pounds.

Potatoes: Foreign demand stronger than last year for first six months. Drouth damage in Europe may boost U. S. exports. Lower acreage with higher per-acre yields and higher prices to farmers for 1960. Sweet potatoe prices expected to rise seasonally into spring, closing about even with 1959 finals.

Cotton: No significant difference expected in federal program. Same "A and B plan" choice available in 1960.

There's your "capsule version" of agriculture in '60. Good luck in both planning and farming. Let us know if it helps you.

Test Your WEATHER



There are many statements about the weather. Some are based on facts, but others are mere superstitions. Test your I.Q. on the following remarks. Are they scientifically true or false?

- (A) If March comes in like a lion, it will go out like a lamb. T or F
- (B) Rainbow in the morning, sailors take warning. Rainbow at night, sailor's delight. T or F
- (C) If there is a ring around the moon, there will be rain. T or F
- (D) If the groundhog sees his shadow on February 2, there will be six more weeks of cold weather. T or F
- (E) Rain before seven, shine before eleven. T or F
- (F) If it rains on Easter Sunday, it will rain the

- six following Sundays. T or F
- (G) Hot air weighs more than cold air. T or F
- (H) Wind is caused by differences in air pressure. T or F
- (I) Fog is a cloud close to the ground. T or F

Three of the most common clouds are known as: cirrus, cumulus, and stratus. Can you match the clouds with their characteristics?

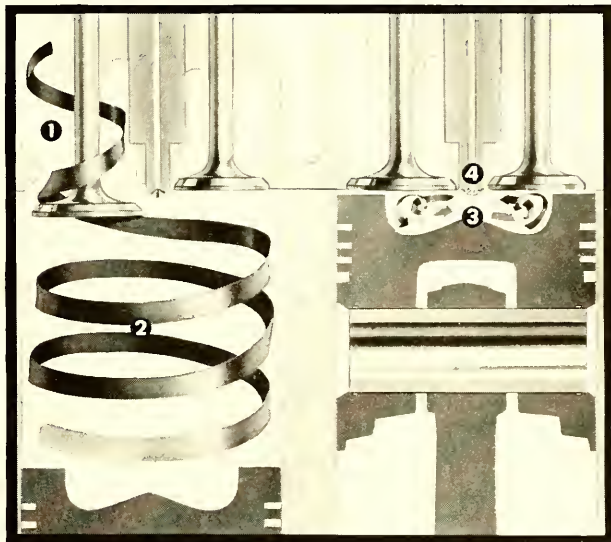
- | | |
|-------------|--|
| (J) Cirrus | (1) Fluffy, billowing clouds called "thunderheads" |
| (K) Cumulus | (2) Long, streaked clouds with curls at the end; are made of bits of ice |
| (L) Stratus | (3) Grey layers of clouds, often covering the entire sky |

ANSWERS:

(G) False. Hot air expands making it weigh less than cold. Hot air is pushed up by cold air which is heavier.
 (H) True. When hot air rises, it leaves an area of less pressure. Colder air rises in making what we call wind.
 (I) True. When the tiny bits of water in the air condense in the sky, it is called a cloud. On the ground we say "fog," but both are the same.
 (J) 1 is 1; K is 2; L is 3
 10-12 correct answers: You're well on your way to being a weatherman. Congratulations.
 5-9 correct answers. Like most of us, you know a lot, but not everything.
 1-4 correct answers: Better carry a raincoat, ear-muffs, and your coolest outfit at all times. You just aren't weatherwise.

(A) False. March is a month with variable weather, but depend on the conditions on one particular Sunday.
 (B) True. If there is a rainbow in the morning, it will be in the west because it is always in the opposite direction from the sun, and there must be water in the air. Since weather travels from the west, the storm will likely arrive by moon.
 (C) True. A ring around the moon is caused by ice crystals high in the air. It often means a storm is on the way.
 (D) False. Groundhogs are not weathermen. This is a well publicized superstition.
 (E) True and False. Most rains last only a few hours. If a rain starts in the early morning the heat of the rising sun often "burns off" the clouds.
 (F) False. The weather that follows Easter does not depend on the conditions on one particular Sunday.

DYNACLONIC



Another step forward in diesel efficiency

Diesel power is gaining in popularity in the tractor market as more and more farmers recognize the fuel economy, long life and excellent lugging characteristics of the diesel engine. Some manufacturers have turned to foreign suppliers for their smaller diesel engines. The J. I. Case Company felt that an efficient low cost diesel engine produced in the United States would enjoy greater acceptance by American farmers. As a result, several new 1960 Case tractor models now arriving at Case dealerships incorporate a new concept in diesel design known as Dynaclonic.

Dynaclonic design utilizes a new principle of introducing air into the combustion chamber. Air intake passages (see 1 above) have a built-in corkscrew that causes the air to swirl horizontally *before* it enters the cylinder (2).

When the piston raises on the compression stroke, the swirling air in the cylinder is forced into the combustion chamber in the head of the piston (3). The compression causes the horizontally swirling air to roll vertically as well — creating *controlled Dynaclonic turbulence*. Fuel is then directly injected (4) into the combustion chamber in four fine sprays where it is completely mixed with the air and burns instantly. The result is better utilization of fuel and air for faster starts, cleaner burning and greater fuel efficiency.

Your J. I. Case dealer will be glad to tell you more about the benefits of Dynaclonic design.



J. I. CASE

J. I. CASE CO. • RACINE, WIS.

1st in Quality for Over 100 Years

MAIL TODAY

For complete information on new Dynaclonic diesel tractor power. Mail to J. I. Case Co., Dept. B-910, Racine, Wis.

Name _____ ☐ Teacher
☐ Student

Address _____



History of the Breed

The Hereford

NINE-YEAR-OLD Benjamin Tomkins decided to name the cow Silver. Ben's father was dead and the animal was his legacy.

One of Silver's sons was later mated to two of Ben's more promising cows, Pigeon and Mottle. That union made history. From it was to emerge a cattle breed able to cope with a variety of conditions. Some have called the Hereford, named for Tomkins' native county of Hereford, England a "product of necessity." Countless cattlemen today praise Herefords for their ability to adapt themselves to extremes in climate and terrain.

But to Tomkins whose serious breeding work started in 1742, they represented primarily a cattle breed which would help to cash in on Britain's 18th century industrial boom. His cattle were dark with mottled faces, and from the beginning were selected for early maturity and ease of fleshing. The herd was continued until 1819.

The same bloodlines are assumed to have been used in William Galliers' herd. Galliers is credited with the first recorded public sale of Herefords in 1795. These early English Herefords were quite large. Mature 3,000 pound animals were not uncommon. Gradually, however, the type changed to less extreme weight with more smoothness and quality.

Kentucky statesman Henry Clay imported the first Herefords to America in 1817. William Sotham and Erastus Corning of Albany, New York, established this country's first breeding herd. The coming of the railroads heralded increased popularity for the breed. In the nine years following 1880, 3,500 head were imported.

With the dawn of the 20th century, came the polled branch of the Hereford breed. Warren Gammon of Des Moines originated the idea of Herefords without horns. After surveying many breeders, Gammon was able to buy four registered bulls and seven females which were naturally hornless, though from horned parents. After a successful breeding experiment, herds of polled Herefords are now widespread throughout the nation.

From England, the beefy Herefords have been exported not only to the United States, but to more than 20 countries where grass is grown and beef production is possible.

GREATEST IMPROVEMENT IN BOOTMAKING SINCE RUBBER HEELS

NOCONA *Thin-Line* CUSHION SHANK

PATENT
APPLIED
FOR



IT COSTS SO
LITTLE MORE
TO WEAR
THE FINEST



A new experience in foot comfort and boot durability is yours to enjoy in a pair of NOCONA BOOTS having Nocona's new and exclusive Thin-Line Cushion Shank. The rubber cushioned shank lets you "WALK ON AIR". Only in specified NOCONAS.

NOCONA BOOT CO., INC. • ENID JUSTIN, President • NOCONA, TEXAS
NOT CONNECTED WITH ANY OTHER BOOT OR LEATHER MANUFACTURER

Indiana's Largest One-Owner Farm Produces 170 Bushels of Corn per Acre with **Armour Vertagreen**



William Gehring, Rensselaer, Indiana, knows:
Armour Vertagreen® is
worth more because it does more!

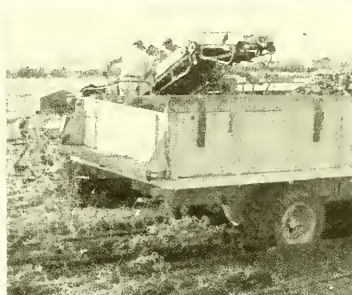
In the north central section of Indiana is located the largest individually-owned farm operation in the state. On this farm, Mr. William Gehring and his son, William, Jr., grow corn, onions, potatoes, peppermint, and spearmint. Mr. Gehring insists on Armour Vertagreen, Armour's premium fertilizer for all his crops, and has achieved truly remarkable results.

Mr. Gehring's corn crops, a part of which are grown for a hybrid seed corn company, average better than 170 bushels an acre. Mr. Gehring gives a large part of the credit for this impressive yield to his use of Armour Vertagreen. Mr. Gehring's high-quality potatoes, which he harvests at the rate of 300 tons a day, are grown with Vertagreen. Seed potatoes for this crop are also grown with Vertagreen by supplier Felix Zeloski, of Antigo, Wisconsin. After using Vertagreen, Mr. Gehring reports that the yield of oil on his spearmint crop this year was the highest he has ever harvested.

No wonder Mr. Gehring says, "We are convinced that Armour's Vertagreen helps us grow top quality, high yielding crops."

In addition to managing his large farm, Mr. Gehring is active in many local community organizations as well as being first vice-president of the Northern Indiana Muck Crops Association.

Indiana farmer, William Gehring, Jr. and Armour representative Sam Vander Wall in mile-long field where 170 bushels of hybrid seed corn per acre were harvested.



Potatoes are harvested at the rate of 300 tons a day! Mr. Gehring combines the use of Vertagreen, the complete, premium fertilizer, with modern harvesting methods for a truly efficient farm operation.



*There's An Armour
Fertilizer For
Every Growing Need*



Mr. Gehring with an impressive array of Vertagreen-grown onions ready for market.

ARMOUR AGRICULTURAL CHEMICAL COMPANY

ON

DEFENSE



Keep your arms outstretched. You can block both passes and dribbles with one hand up and the other held down.

By Raymond Schuessler

YOU NEED more than a lot of sharpshooters to win a basketball game," says Bob Cousy, Boston Celtic star. "You have to prevent your opponents from scoring, too."

Some call defensive play unspectacular and yet it has saved many a great team from defeat when their shots failed to drop. How many times have you seen a 20-goal man held to a mere 10 points by an inspired guard who singlehandedly ensured victory for his team?

With good defensive tactics you can force your opponents to take hurried shots and passes which are often ineffective. Furthermore, if you can force a team to take their shots from no closer than 20 feet out, you've got them beat—providing they don't do the same to you.

No matter whether your team uses the zone defense or man-to-man defense, success depends on how well each player does his individual job. Once you learn the proper fundamentals of defensive maneuvers, you can star in either system.

If there is any one defensive tactic which is all-important it is this: Always keep yourself between your opponent and the basket.

Always take short shuffling steps like a boxer or a fencer. If you take long strides you can be easily outmaneuvered. Never leap or jump; by the time you come down your man will be gone.

Which hand and foot is closest to your opponent? The hand and foot which is closest to the nearest sideline.

Never take your eyes off your man after he passes. If you do you may find he is gone—with a return pass. If he dribbles try to force him to the sidelines.

Keep moving your hands and feet. A moving guard will make it tough for an opponent to concentrate on his passing or shooting. Constant harassment can upset him enough to throw the ball away.

Other offensive men may cut in between you and your man, so stay alert to the actions of other opposing players, too. Learn how to switch players and to use your voice to inform your teammates when you do.

Most of all, stay alert. Of course, you can't anticipate the actions of your opponents, but you can be ready for anything.

Take short steps on defense. Don't run or take long, lunging strides.



Meet your opponent with outstretched arms. Always be ready for a feint.

If he shoots, keep your eye on him and keep him away from the rebound.

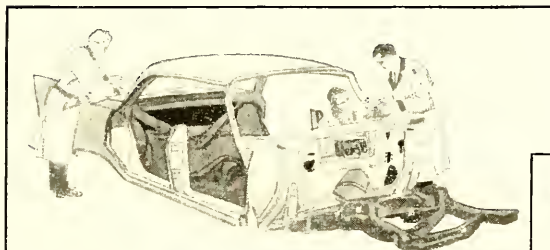


A smart player will run around you while you are taking a long stride.



SHAKE, RATTLE, AND RUST BITE THE DUST

in the 1960 cars from Chrysler Corporation



DEVELOPED THROUGH SPACE-AGE ENGINEERING, Unibody combines body and frame into a single solid unit instead of separate units connected by nuts and bolts. Giant electronic computers showed us how to make Unibody quieter and smoother-riding than is possible in earlier "unitized" construction.

A completely new way to put cars together—Unibody Construction—makes these new cars stronger, quieter, roomier—and rust-free for years!



YOU'RE SURROUNDED WITH SILENT STRENGTH. Because it's a rigid yet perfectly "tuned" whole, Unibody silences shakes, squeaks and rattles as no other method of building cars can. In fact, the 1960 cars from Chrysler Corporation are so quiet, you feel as if you're going 10 miles an hour slower than you actually are!



TWICE THE TORSIONAL STRENGTH, 40% more beam strength than previous models. These new bodies are framed like bridge trusses. The electronic computers told us how to get rid of useless bulk and put strength where it is needed. Result? You get a wonderful feeling of security that makes driving more enjoyable than ever.



MORE ROOM INSIDE without raising the roof or stretching the car. You can sit up tall or stretch out and relax in these cars—and they're no higher and no longer than last year's models. Unibody let us lower the floors and make the doors wider, too. And there's no dogleg in the front door opening to bang your knees on.



NEW METAL TREATMENT STOPS RUST YEARS LONGER. All metal is specially cleaned to remove oil traces—and the body is dipped a total of seven times. Metal panels treated this new way showed no rust after salt-spray tests equal to 12 years of outdoor exposure—five times longer than otherwise identical panels

That's Unibody—you can't see it, but you'll know it's there the moment you put one of these new 1960's on the road. Why not see for yourself. Stop in at the dealer's with Dad for a drive that will bring out the difference great engineering makes!

The Quick, the Strong, and the Quiet



from **CHRYSLER CORPORATION**

VALIANT • PLYMOUTH • DODGE DART • DODGE • DE SOTO • CHRYSLER • IMPERIAL



These are American farm stamps.

a farmers stamp collection

These farm stamps are from Pakistan, Egypt, Virgin Islands, Russia, Hungary, New Zealand, France, Argentina, Bahamas, Costa Rica, Italian Somaliland, France, Australia, Romania, Armenia, Australia, and France.



By Dr. Russel R. Voorhees

COLLECTING STAMPS is not a new hobby; it began when the first stamp was issued.

Within the past few years, however, stamp collecting has taken a new turn. People began to collect only those stamps whose design held special interest for them. Musicians began to collect stamps showing famous musicians; men connected with the automobile industry began to collect stamps showing automobiles; and farmers began collecting stamps showing farm scenes.

Farming is important in practically every country in the world. In most countries it is a major activity. With stamp collecting getting more followers every year, many countries are issuing beautiful and interesting stamps showing farm scenes and activities.

Collecting the stamps of the world with farming scenes has become a fascinating hobby with many farmers, both young and old. The number of stamps and the variety of scenes they show is so great that if one is interested chiefly in dairy farming he can collect only stamps showing dairy cattle and dairy farm scenes. If animal husbandry is appealing, a farmer can limit his col-

lection to that field. There are even stamps showing chicken farms, field crops, and harvesting. Stamps show almost anything and everything connected with farming.

Farming with a stamp collection is a lot of fun for a spare time and night project. No large album is needed. Instead, standard looseleaf sheets, punched for a two- or three-ring binder are sufficient. Plain loose leaf sheets punched for ring binders are available from stamp dealers. Almost any printing shop can cut cover stock to form loose leaf sheets and punch them for binders available in most five and ten cent stores.

Stamp dealers sell special hinges for mounting stamps on the album sheets. With loose leaf sheets, a binder, and some hinges a farmer is ready to begin.

Making a collection of farm scenes on stamps is generally done by classifying the stamps according to subject. For instance all scenes showing planting operations will be mounted on one page. Another page will be devoted to harvesting scenes. Still another page will show chicken farms and another dairy farms and dairy cattle. In this

way the entire field of farm operations can be covered with one or more pages devoted to each activity. Some collectors allot an entire page to a country for each different farm operation. As new stamps are issued they are added to the page devoted to its country and special farm activity.

The Future Farmer's organizational idea has spread to other countries. Australia has a similar organization and has issued a stamp honoring it. It is quite possible to establish correspondence with members in such countries which can result in an exchange of experiences and stamps. Australia has issued some very attractive stamps showing cattle and other farm scenes.

Future Farmers, like all other farmers, do not have too much time that can be called spare time. But there are odd times at night, and in some parts of the country, spare time in the off-season when a farm stamp collection can provide a great deal of pleasure. It is not an expensive hobby and it doesn't take much time to add a few stamps as they are obtained.



The National FUTURE FARMER



“If I didn’t have these telephones, I wouldn’t have this place”

Eldon Hott runs his 70,000 broiler operation near Franklin, West Virginia, with the precision of a Detroit assembly line. It takes 25 to 50 daily telephone calls to do it. Many are made

long distance to nearby states.

About three years ago Eldon realized that his operation was literally tied together with telephone calls. He did his buying, selling—most of his management—with the phone. Yet when he was wanted on the line, Mrs. Hott had to drop her housework and hunt through the outbuildings to find him.

Eldon decided it was easier to take the telephone to the farmer. So he had two extensions installed—one in his feed mill, and another in a central broiler house. Each is equipped to allow Mrs.

Hott to hold an incoming call while she dials one or the other of the extensions. Both have a loud-ringing bell that Eldon can hear in other buildings.

With this system, Eldon is seldom more than a few steps from a call. And, neither he nor Mrs. Hott have to put up with that endless running between house and buildings.

If you’re a busy farmer, an extension or two on your place can help you accomplish more in a working day. Call your telephone business office. They’ll be glad to help.



Mrs. Hott is sold on extension phones. “Before we got the extensions I spent several hours a day running to find Eldon. Now I don’t see how we managed without them.”

BELL TELEPHONE SYSTEM



NEW SHORT-CUT for computing dairy production and feed consumption



DAIRY COMPUTER

Just a few twists of the wrist tell you:
• pounds of milk per month
• pounds of butterfat per month
• pounds of feed consumed per month
Price \$3.00—Two or more \$2.50 each

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Thrifty, hardy, easy lambing, excellent producers. Cheviot rams sire superior market lambs. Literature, list of breeders free.
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welcome to the world



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No. 50—Driving Like a Pro offers hints for better driving from a man who ought to know! Written in young adult language and illustrated in comic book style, this 16-page color reference is tops. Tells how to avoid highway hypnosis, fatigue, and reduce weather hazards. Tips on passing, starting, turning, and night driving. A "how do you rate" quiz will test your skill. (Greyhound Corp.)

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By Stan Allen

IN A GAME of highly trained specialists such as professional football, a triple threat player is a rare find. But such is Frank Gifford, star halfback of the New York Giants.

The gifted Mr. Gifford hails from Bakersfield, California where he began his football apprenticeship. He earned college football All-America honors at the University of Southern California. He started showing his versatility at USC too. In his first year he was a defensive star. Later he moved into the offense at the tailback slot of a single wing formation. He was also a reserve quarterback.

He closed his college career in 1951, by scoring 74 points and gaining 841 yards rushing. He attempted 61 passes with 32 completions, kicked two field goals, and recorded 26 points after touchdowns. He also had a 33.4-yard punting average. Only three of his 111 collegiate passes were intercepted.

After such a finish it was only natural for American and Canadian pro scouts to camp on his door step! Gifford signed with the New York Giants as their number one draft choice in 1952. He put his many talents to work during his first season in '53. The Giants were short on talent and Frank found himself running, passing, and receiving passes besides playing on defense. In the last five games of '53, he played 50 minutes per game. In the pro game of free substitution, the possibility of a rested end coming at you on every play can make dual playing very difficult. He was assigned mainly to the defensive squad in '54 and proved to be a top player there.

Standing six feet, one-inch tall and with a playing weight of around 200 pounds, he has good size to go with his speed. Gifford also has that sixth sense of anticipating a play which helped him win a berth on the '54 Pro Bowl Team as a defensive back. He began to share offensive duties again in '55 as a filler in injury-ridden spots. He would find himself first a runner, then a passer, or even going out to catch a pass. He made the Pro Bowl again in '55.

In 1956 he ran his way to one of the best years of his career, helping the Giants to a League Championship. Including the World Championship game, he appeared in 13 contests and gained 849 yards. On one of the Giants' pet plays, the halfback option, Gifford completed two touchdown passes. He kicked eight extra points and one field goal, also scoring 10 touchdowns. He won the Jim Thorpe Trophy as the League's Most Valuable Player which is voted by the players themselves. He was third in the league in pass receiving and fifth in rushing that season, becoming the first player in pro football history to wind up so high in both departments. He also led the League's halfbacks in passing.

Gifford enjoyed good years in '57 and '58. As a halfback, he finished fourth in pass catching in '57 with 17 snares, a record for a back. He improved still more in '58, catching 29 for 330 yards. He notched eight touchdowns rushing and two passing, which ranked him 11th in league scoring. He gained 468 yards on the ground for a 4.1 yard-per-try average.

You can bet his name will be among the leaders when 1959 records are tabulated, as he helped the Giants to another division title. He has been named to five All-Pro Teams and three All-League Teams. Frank Gifford is versatile off the gridiron too. He is an actor, sports writer, and even has a TV show in Bakersfield. It is hard to say where his future will go, but his fans hope for several more playing seasons. With his knowledge and love of the game, experts predict a bright future for him as a football coach.



Wide World Photo

Giant Star Frank Gifford is a rarity among pro football players—a triple threat! He kicks, runs, and passes.

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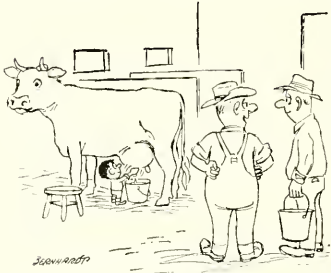
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Sergeant, giving orders to the gun crew after a few hours of poor target practice: "Okay, you guys, lay off those guns and get the mops and brooms."

One of the gunmen: "K. P., Sir?"

Sarge: "No, if you can't hit the target, maybe you can beat it to death."

Michael Kloska
Harbor Beach, Michigan

Bob: "Whisper the three little words that will make me walk on air."

Susie: "Go hang yourself."

Wilmer Davis
Broadway, Virginia

A youth in his teens strode into a barbershop, frowned at the long line of men waiting to be served then demanded imperiously, "How long will I have to wait for a shave?"

The barber looked closely and replied, "About six months, I guess."

Larry Coble

Fairfax Station, Virginia

Sign in Miami Beach: "Keep Florida Green—Bring Money."

Karen Conrad
Fostoria, Ohio

Doc: "You'll be all right, Jones, your left leg is swollen, but I wouldn't worry about it."

Jones: "No, and if your left leg was swollen, I wouldn't worry about it either."

Donald Ray Lockard
Oak Grove, Louisiana

To study the migratory habits of birds a government agent released thousands banded with metal strips reading, "Notify Fish and Wildlife Division, Wash. Biol. Serv." They soon heard from a Kansas farmer. "Gents: I shot one of your crows last week and followed the instructions attached to it. I washed it, biled it and served it. It was AWFUL."

Stephen Lawler
Puritus, Mississippi

A reporter went to interview a local celebrity who had reached his 99th birthday. As the interview concluded the reporter complimented the near centenarian and added, "I certainly hope I can return next year and see you reach 100!" "Can't see why not, young man," the old timer replied. "you look healthy enough to me."

Doug Dankers
Red Wing, Minnesota

A five-year-old girl was asked by the minister how many children were in the family. She replied, "Seven."

The minister observed that so many children must cost a lot.

"Oh, no," the child replied. "We don't buy 'em, we raise 'em."

Howard Geradst
Monroeville, Indiana

Sign on small service station at edge of a western desert:

Don't ask us for any information. If we knew anything, we wouldn't be here.

Everett Schwartz, Jr.
Noble, Illinois

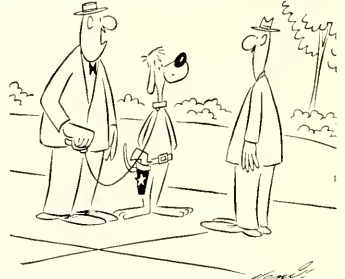
Wife (reading husband's fortune card): "You're brave, strong-willed, and popular with the opposite sex.—It has your weight wrong, too."

James D. Evett
Woodville, Alabama

Traffic Cop: "Listen lady, didn't you hear my whistle?"

Young Girl: "Yes, but you're wasting your time, I'm engaged."

Harvey Adams
Quitman, Georgia



"He loves to play with children!"

Babysitter, tucking Junior into bed: "There you are, Junior. Now would you like me to tell you a bedtime story?"

Junior: "No, thanks."

Babysitter: "Would you like me to sing you a lullaby?"

Junior: "Oh, no—don't bother."

Babysitter: "Then, what CAN I do for you?"

Junior: "Well, I've had a very hard day. Suppose you just go watch television and let me get some sleep!"

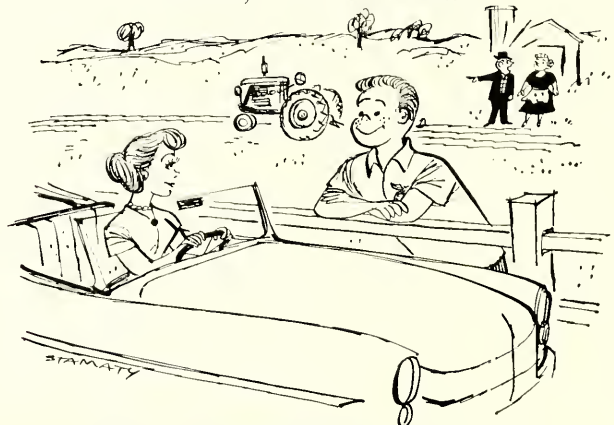
B. A. Dougot
Marksville, Louisiana

As a mother slipped out of the room after putting her son to bed, she heard him add this postscript to his prayers:

"... and God, please make Jimmy stop hitting me—I've mentioned this before!"

Lauren Haney
Wingate, North Carolina

Charlie, the Green Hand



"Cultivating friendships is fine, but not while he should be cultivating fields."

The National FUTURE FARMER will pay \$1 for each joke published on this page. Jokes should be submitted on post cards addressed to The National FUTURE FARMER, Box 29, Alexandria, Virginia. In case of duplication, payment will be made for the first one received. Contributions cannot be acknowledged or returned.



"Machines like these will keep boys on the farm"

says Mr. James Vincent, Cochranville, Pa.



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