



The National Future Farmer

Owned and Published by the Future Farmers of America



Graduation—Proud moment in a Future Farmer's life

In This Issue:

Careers in
Agriculture

Henry Nagamori
Star Farmer

Target
Youth

FFA Goodwill
Tour

June-July, 1962

Here's the big reason why Massey-Ferguson stays out ahead year after year as the world's largest manufacturer of self-propelled combines.

It's Massey-Ferguson's unique kind of capacity that does it—capacity measured not just by combine size



The giant Massey-Ferguson Super 92—now with either diesel or gas power and up to 18-ft. cut . . . and the famous 14-foot MF 82

and width of cut, but by results at the "business end" of the combine where they really count. By more grain in the tank. By cleaner grain that grades higher. By

more acres harvested at each day's end. And by the man-hours saved each season. *That's* the way the men who know combining best measure capacity—the border-to-border custom operators whose profits depend on it. And that's why more custom operators and farmers the world over choose Massey-Ferguson Combines than any other make.

Massey-Ferguson's kind of capacity didn't just happen; it was engineered that way. And it's the result of many carefully calculated factors. A key factor, of course, is Massey-Ferguson's exclusive Balanced Separation, a separating and cleaning system so efficient that every operating unit does its job without internal "traffic jams" or slowing down ground speed.

But just as important are the many other factors that produce Massey-Ferguson's kind of capacity. *Proven dependability* is one—the

Measure
your **capacity**



rugged ability to stay on the go all through the harvest. It's one of the big reasons MF Combines are first choice with custom operators. They know that down time lost for repairs and maintenance is *capacity* lost. *Quick, easy transportability* is another. MF Combines



The hustling 12-foot Massey-Ferguson 72 for medium-size farms outworks many more costly combines

are low, compact, highly maneuverable; travel between fields and jobs with no delays. And even the big new 18-ft. Super 92 is so compact it can be driven up on a "semi" trailer and hauled along the highway.

Operating ease is still another factor that saves extra time to boost capacity. Up in the comfort seat on a low-built Massey-Ferguson Combine, you have an all-around view of your work. All controls are within easy

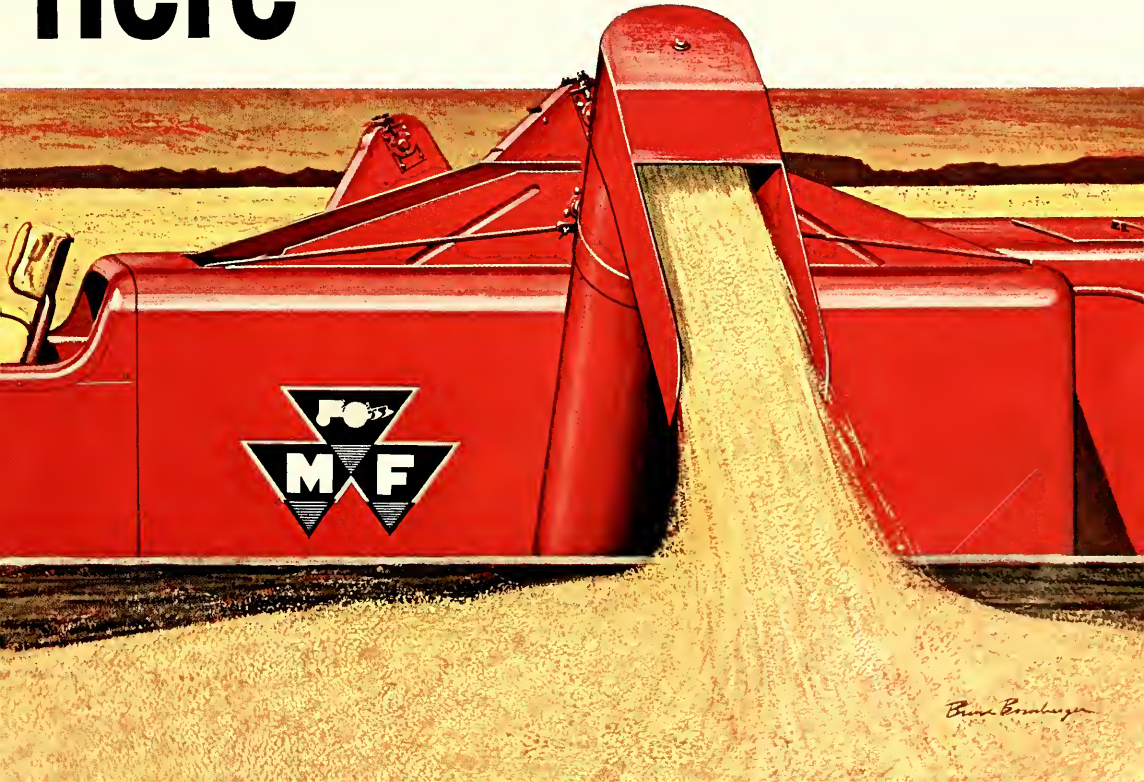


The fast-stepping improved Massey-Ferguson 35 sized and priced right for family-size farms

reach. Center of gravity is low for greater safety in the field and on the road, faster transport speeds, better maneuverability. The only way to make sure the next combine you buy delivers *this* kind of capacity, is to make sure it's a Massey-Ferguson Combine!

MASSEY-FERGUSON... World's largest manufacturer of tractors and SP combines

here where it really counts!



Billie B. Boren

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OUR COVER (Staff Photo)—Indeed, Graduation Day is a proud time for the Future Farmer . . . for parents, too! All over the country, robes are donned at this time of year by graduating seniors. Our models are Jim Teets, Terra Alta, West Virginia, and his mother, Mrs. Clem Teets.

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The National FUTURE FARMER



...GUARANTEED TO OUTPULL ANY REPLACEMENT TRACTOR TIRE YOU'VE EVER BOUGHT— OR YOUR MONEY BACK!

If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Firestone Field and Road Tractor Tire is further guaranteed against defects in workmanship and materials for the life of the original tread. This guarantee provides for a replacement of the same size and type of tire prorated on tread bar wear and based on list prices current at time of adjustment.

NEW FIRESTONE FIELD & ROAD TIRE

At *sensationally low prices*, you get new Field & Road tires *guaranteed* to outpull any rear tractor tires you've bought.

New-shaped, wide-spaced traction bars, set at a flatter 23° angle, gear these tires to the ground for a tighter "foothold."

Exclusive sidewall action gives you new *total* shoulder-to-shoulder contact of tread and ground. Result: you get all the traction you paid for in your tractor.

You can expect these tires to *outlast* any you've ever bought before, too. And for four good reasons:

1. This new traction-bar design *ends* excessive scrubbing and road wear. *The bars on the Field & Road do not "cup-out" or wear unevenly.*

2. Tough Firestone sidewall rubber withstands flexing without weakening.
3. Durable Firestone Rubber-XF increases traction bar life.
4. Powerful Shock-Fortified Tyrex® cord body gives you unmatched impact protection.

Get Field & Road tires—the tires that are already proving to be "the shape of tractor tires to come"—at your Firestone Dealer or Store. Use them for 60 days. Convince yourself that these tires outpull any others you've ever put on your tractor. Or get a refund. It's as easy as that to find out how much pull-power is *really* built into your tractor! Buy on convenient farm terms.

© T. M. of Tyrex, Inc., for rayon tire cord.

THESE FARM LEADERS TESTED FIRESTONE'S FIELD & ROAD NATIONWIDE... READ WHAT THEY SAY!



Jesse Meharry, Tolono, Ill.: "I've never used a stronger pulling tire!"



Howard Papen, Wyoming, Del.: "If Firestone makes it, it has to be good!"



W. A. Musik, Richland, Kan.: "They go through where others quit cold!"



Marion Hurd, Ogden, Iowa: "They take me where I couldn't go before!"



Lee Flora, Delphi, Ind.: "It has traction that makes a big difference!"



Vince Kovacevich, Fresno, Calif.: "The traction improvement is terrific!"



Herman Frundt, Guthrie, Okla.: "Never had tires that pull like this!"

Firestone

YOUR SYMBOL OF QUALITY AND SERVICE

Copyright 1962, The Firestone Tire & Rubber Company

For going
places...



doing things
TRIUMPH

Practical . . . Economical . . .
yet alive and exciting

READY FOR YOU TO
GET ON AND **GO!**

Triumphs are definitely not
to be used by one type of
boy — the stay-at-homes.
For those who want to move
. . . Triumph is it!

Climb astride a Triumph
NOW, and experience a new
kind of fun-feeing. With
your own private mount,
you'll be able to go where
you want to, and when.

A half-century of engineering
leadership has made
Triumph famous throughout
the entire world. First in
design . . . rugged performance,
economy and speed.

Triumph is the world's fastest
motorcycle. Holder of
the A.M.A. approved ABSOLUTE
SPEED RECORD, Bonneville,
Utah, 214.47 m.p.h.

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He'll be glad to see you.

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complete 1962 Triumph line.

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Your Editors Say . . .

Soil Stewardship Week is from May 27 to June 3. The theme this year is "Water—The Stream of Life." This theme re-emphasizes the need for proper use, development, and conservation of this vital natural resource. The reason is clear. In an era of synthetic substitutes, man has yet to devise an adequate substitute for water. Many FFA chapters will join with Soil and Water Conservation Districts and local churches in urging all people of America to give serious consideration to the responsibility of stewardship—including the stewardship of the soil, water, the other natural resources which God has so bountifully supplied for man's use.

This item appeared in the Nevada, Kansas, and Illinois FFA publications. The original source is unknown to us, but we would like to share with you this slightly edited version.

"People thought Thomas Edison was 'off his rocker' for trying to develop the light bulb. Henry Ford caused heads to nod by rodding his contraptions up and down the street. Many others have been scoffed at for trying new things which they thought were right.

"Have you ever been laughed at for doing something which you thought was right? Maybe it was on the basketball court when you made a mistake. Maybe it was when you were in the parliamentary procedure contest that you stood up for a point of order in which you thought your point was well taken. It could have been one of many places.

"We, as Future Farmers, cannot afford to become so discouraged when we make mistakes that we just give up and let the others laugh. We must take the lead, take the initiative, take the embarrassing moments as well as taking the happy and rewarding ones. We must take off on a new road or take up where someone else has left off to make the backbone of our nation (farming) much stronger.

"It will take courage to be able to carry out these challenges. It will take nerve, fight, and more action. As a Future Farmer, I dare you to start a crusade to be your best. I believe you are a better, more capable person than you have demonstrated so far.

"Once you challenge yourself, once you stop drifting with the crowd and face life courageously, life will take on a more significant outlook."

We are pleased to announce the return of Charles Ocker to the Magazine staff. He has accepted a position as Regional Advertising Manager, a post he previously held for nearly four years before returning to his home state of Missouri.

Charles's background and experience make him particularly qualified to serve FFA and the advertisers who use your national Magazine. He has been a Future Farmer, a farmer, and has held sales positions in both advertising and insurance. His major responsibilities will be to counsel with companies and advertising agencies on how they can reach the important Future Farmer market through this Magazine.

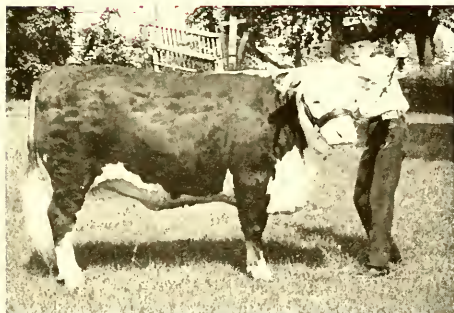
Charles attended high school at Cameron, Missouri, where he was graduated in 1950. He compiled an outstanding record in the FFA which included participation in the national public speaking contest in 1950, a state officer in 1951, and national student secretary in 1952-53. His college work was done at the University of Missouri, and he later served in the Army, spending a year of his service time in Alaska. He is married to the former Shirley Hanchey, of North Carolina, and they have one son, Charles Robert, age three years.



Charles Ocker

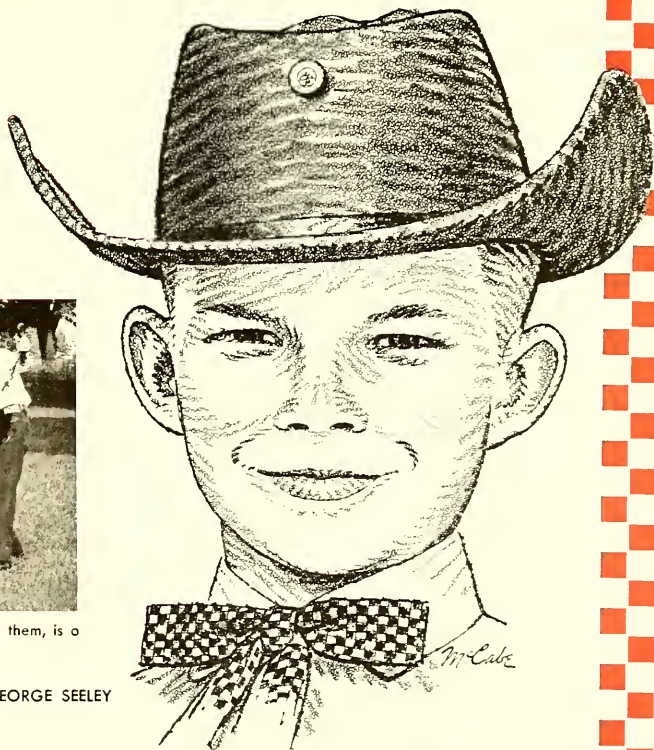
Wilson Carnes,

Editor



George Seeley likes cattle, knows how to handle them, is a successful showman.

GEORGE SEELEY



Youth's 4-H Club experience is foundation for future

Although George Seeley is not yet in high school, he has an outstanding record in 4-H Club projects. He has learned how to handle cattle and to like them. Hard work with his Herefords has paid off for this Clio, Michigan, boy.

In Michigan State Fair competition, he has a second-place ribbon in the 4-H class and a first in the open class. At Michigan State University, George took the Reserve Championship with his heifer. His neat appearance and skillful handling of stock have won him the Junior Showmanship award twice. All told, he earned more than a score of blue and purple ribbons.

George already owns three registered Hereford heifers, which will be the foundation of a herd for his future. He has money in the bank to pay for the start of his college course in agriculture at Michigan State University.

Purina salutes George Seeley for his well-planned future and for the progress he has made toward reaching it.



At the Danforth Farm Youth Center, on the Purina Research Farm at Gray Summit, Missouri, research with cattle is a major activity. Youth Center research is planned to help young folks in preparing their cattle for the show ring. More than 2500 young people visit the Youth Center each year. Ask your Purina Dealer to tell you how you can join a trip to Danforth Youth Center.

THE FASTEST, MOST ACCURATE LEVER ACTION 22 MADE!

NEW REMINGTON NYLON 76 "TRAIL RIDER"

Now you can own a lever-action 22 that not only looks great . . . it shoots great, too!

Take a good look at Remington's rugged new Nylon 76, first lever-action 22 with built-in accuracy! The big difference is the accuracy advantage of structural-nylon. Remington uses this amazing chip-proof, waterproof, warp-proof material to make the strongest, most rugged stock and fore-end known.

This extra nylon stability lets Remington precision-fit stock to barrel with three-point bedding, the same principle that gives costly target rifles their accuracy. Add to this a precision-rifled ordinance steel barrel and an extra-short 45° lever throw, and you have the fastest, most accurate lever action you've ever shouldered.

Handsome, too . . . again thanks to structural-nylon. The graceful lines, perfect checkering and inletting can only be duplicated by painstaking hand craftsmanship. And the sensible 4½-pound weight means easier carrying all day long. Features handy top-of-grip safety and fully adjustable sights. Grooved for tip-off scope mounts. Holds 15 long rifle cartridges. \$59.95*

*Prices subject to change without notice.

Remington
DU PONT

"Trail Rider" is a trademark of Remington Arms Company, Inc. Bridgeport 2, Conn. In Canada: Remington Arms of Canada, Limited, 36 Queen Elizabeth Blvd., Toronto, Ont.

Extra Hour For Ag

What personal sacrifice are you willing to make in order to study vocational agriculture? Ninth graders at the Custer Junior High School in the Ferndale District of Washington are willing to arise one hour earlier each morning.

The Junior High school day starts at 9:00 a.m. at Custer. But the 10 freshmen ride an early bus to Ferndale, about eight miles away, in order to start their school day at 8:00—with vocational agriculture. The Ferndale instructors, either Messrs. Sig Baldwin or Leonard Derr, then transport the students to their own school in the Chapter pick-up.

Loans Without Interest

Credit is important to a Future Farmer trying to get started, or to expand. And there are many sources from which you may borrow money. Few, however, have a set-up like one enjoyed by young people in Connecticut and Massachusetts. No interest is charged.

Last year, 51 young people borrowed \$8,041 from the WTIC (radio and TV) Farm Youth Program to purchase dairy calves. The average loan per calf was \$155.70. This figure does not represent the total purchase price, since many added money of their own when purchasing calves.

Since the start of the program in 1948, 704 young people have borrowed \$110,759.18. The borrowers receive full ownership of the calves when they repay the money they have borrowed. Should the calf die, both the lender and the borrower share the loss.

During 1961, 68 youths repaid \$10,-383.04 to the program to receive full ownership of calves. Twenty-three others made part payments totaling \$1,-300.49, according to the program director, Mr. Frank Atwood.

FFA Week Theme

The theme for National FFA Week in 1963 is "Agriculture—Vital to America." It's not too early to start planning how your chapter will promote this theme during FFA Week and at county fairs, state fairs and other events throughout the year. You will be able to get ideas for exhibits at the National FFA Convention in Kansas City this fall. State exhibits at the convention will be limited to those that feature the National FFA Week theme.

The National FUTURE FARMER

Texaco Marfak could have kept it going...



because it seals out dirt—prevents bearing breakdowns

A *lazy* lubricant won't keep dust and dirt out of your bearings. Instead, it joins forces with these contaminants. Forms an abrasive compound that will stop your farm machinery dead in its tracks. But there's nothing lazy about Texaco Marfak lubricant. This all-purpose grease *sticks* to bearings — better and



longer than ordinary grease. In fact, it molds a tough collar around open bearings that effectively seals out dust and dirt. Resists water. Doesn't jar out, pound out or cake out. Doesn't leak out. And it keeps your equipment working longer. On the farm or on the highway . . . **TRUST THE MAN WHO WEARS THE STAR**

TUNE IN TO THE HUNTLEY-BRINKLEY REPORT, MONDAY THROUGH FRIDAY, NBC-TV.



**What's
it worth
to feel
like a man?**

If you won't settle for less, the Army's the place for you

You feel like a man

when you can decide for yourself what you want from life, what kind of work, what kind of play, what kind of future...

when you can live a man's life, get out of the rut, travel clear across the world...

when you can do a man's work, put your mind and muscle into a job you can be proud of.

You feel like a man in the Army because

you can set your sights on the kind of future *you* want. You can get a good education, you can get training in your choice of many different fields. The opportunities for advancement, the chance to become a commissioned or non-commissioned officer, the retirement prospects... all are better than most men think...

you can visit strange and romantic countries while you're still young enough to see everything, do everything, get all that travel has to give you...

you can prove yourself physically, mentally and emotionally fit to do a man's work. You can have the satisfaction of helping to keep America so strong the war the whole world dreads need never happen.

You can try the Army on for size...

There's nothing quite like an Army career; you don't have to gamble years in a job that may not work out for you. Fulfill your military obligation in the Army, and you'll have a chance for a good, close look at Army life, Army men, Army opportunities.

Then you may decide it's Army for you all the way.

Choice of training before enlistment for those who qualify. See page at right, and talk to the Army Recruiter.

In the

U.S. ARMY



**you can choose
your SPOT
before you enlist:**

TECHNICAL TRAINING

If you're technically minded, you may choose a classroom course, and on-the-job training, in any one of many fields including:

Radar Repair
Telephone Dial Central Office Repair
Motor and Generator Repair
Data Processing Equipment Operator
Aircraft Engine
Diesel Engine
Automotive Repair
Tandem-Rotor Helicopter Repair
Welding
Refrigeration Equipment Repair
Motion Picture Photography
Medical Laboratory Procedures

For complete, up-to-date information on Technical Training in the Army, talk to your Army Recruiter.

SERVICE OVERSEAS

In the Army, you can choose your travel, too, before you enlist, sign up for service overseas in the Infantry, Armor, or Artillery. Enlist in an outfit with friends, if you like and see the world together. Choose Europe, the Far East, Alaska, Hawaii, and assignment to the area of your choice is guaranteed. Talk travel with the Army Recruiter.

COMBAT ARMS

If you welcome the physical challenge, the adventure of combat training, there's a spot that's just right for you in Infantry, Armor or Artillery. First step, a talk with the Army Recruiter.

SPECIAL PROGRAMS

If you have a strong urge toward Army Airborne (can lead to service in SPECIAL FORCES), Army Band, Military Police, Army Intelligence, Army Air Defense Command (the ADC works with those missiles that knock down missiles) ask the Army Recruiter for the whole story.

For the answers to any Army questions...

TALK TO YOUR ARMY RECRUITER

Pimento, Indiana

The space race is something to really look forward to. I believe it will have a stimulating affect on farming. When colonies are established on the moon and other planets, farmers will have the job of growing food (plant or animal) that will be necessary for the people to survive. Those who will do this are today's young farmers or students of vocational agriculture.

Ed McCammon

St. Peter, Minnesota

The space race is a very worthwhile cause and deserves the full cooperation of U.S. citizens. Although this is a very expensive program, it will enable us to explore other planets for mineral wealth and maybe make our own nation more prosperous. An orbital or moon station would also serve as a check point for detecting enemy action in case of war. It is very important who gets there first.

David Jensen

Bradley, Arkansas

Weather satellites could be of tremendous value to farmers of tomorrow. By conquering space, we also may find a totally new way of farm life.

Dudley Wayne Cryer

Elkader, Iowa

The space race could solve the problem of too many people on earth, as well as other problems. But it is taking a lot of money and many people don't agree with this. I believe it is going to take a lot of doing to outdo Russia. The United States can do it, if the people want to. By the way, *The National FUTURE FARMER* is fine with me... only it should come monthly.

Lee Stence

Thanks, fellows, for your space race letters. Check the box on this page for another subject of current interest.

—Ed.

Basin, Wyoming

My brother takes the Magazine and gets to read it first IF he beats me to the mailbox. We enjoy it because it tells us what other teens are doing across the nation.

Linda Stule

Floodwood, Minnesota

What a thrill it was to see my name as first prize winner of the Cartoon



Caption Contest. This was my first try at a contest of this type so perhaps it was beginner's luck. I am enclosing a picture of my prize ram. Please do not print it as I plan to enter a similar one in a photo contest. I have had sheep for my FFA project for three years and have really learned a lot about them. Thank you again for the prize.

Terry Johnson

Schulenburg, Texas

All the members of the Schulenburg FFA Chapter were interested in the article about one of our former members, Oran Little, in the April-May issue. We all receive the Magazine and like its variety of articles. I hold the Chapter Farmer Degree and see many advantages of FFA work. It has taught me things which will be of lasting importance. I hope you do not decide to publish the Magazine every month. In my opinion, that would ruin a fine magazine.

Larry Meyer

Manchester, Ohio

Can a person subscribe to *The National FUTURE FARMER* without being a member of the FFA? I am a young farmer and the school I attended didn't have an FFA chapter. My brother-in-law gets the Magazine and it has helped me work out several farm problems.

Sam Richard Baldwin

Anyone may subscribe to *The National FUTURE FARMER*, Sam. We'll be happy to add your name.—Ed.

Burley, Idaho

I'm a former member of the FFA and I really think every farm youth should belong. One thing that might be added is more study of government in agriculture. It seems government will be taking a bigger part in agriculture in the future, and every farmer, both young and old, should know the full meaning of the various controls and so forth.

Lonie Bruliano

Go Steady or Not?

Future Farmers, what is your feeling about steady dating in high school? Is it good or bad? Your opinions will be welcome for the next Reader Roundup.

**On America's
leading farms**

Myers

PUMPS and POWER SPRAYERS

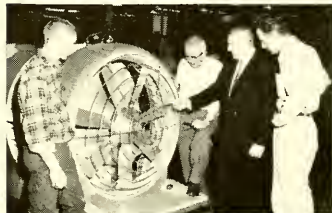
**help the farmer
produce more
...and live better**

For over 90 years, Myers products have helped farmers increase productivity and reduce operating costs. This is a contribution of which The F. E. Myers & Bro. Co. is proud.

The company works regularly with county agents, Vo-Ag teachers and other persons interested in gaining new information about better farming methods. Myers' field representatives are available for technical assistance.



Myers' field representatives cooperate in educational training on farm spraying and water supplies.



For information or free literature on:

- Pumps and Water Systems
- Water Conditioning
- Farm Spraying

write to the Educational Services Department.

Myers

The F. E. Myers & Bro. Co.
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SUBSIDIARY OF THE MCNEIL MACHINE & ENGINEERING CO.

Looking Ahead

SQUARE TOMATO? MAYBE

Fields and orchards will be covered with plastic domes. The soil will be automatically fertilized and sealed against evaporation. Package foods will be dispatched farm-fresh from factories via automatic underground delivery systems. Sounds fantastic! But . . . the 21st century is only as far away as Standard Oil of California's exhibit at the World's Fair in Seattle, Washington. Two more possibilities: square tomatoes, and carrots that are uniform from top to bottom.

"FAMILY SAFETY—AT WORK AND PLAY"

This theme is something you'll be hearing more about between July 22-28. It is the theme for National Farm Safety Week. Have you thought about what you can do to make your farm safer? Has your FFA chapter planned a 1962 safety project?

TWO TIMES THROUGH FOR BEEF

A new concept in beef grading will be on trial July 1. Beef will be graded not once but twice. In "dual grading," carcasses of your animals will bear the usual quality designation (Prime, Choice, Good, etc.), and also have a red stamp to indicate how much actual meat will cut out. A number scale will have "1" for highest cutability, "6" for lowest.

LARGEST FARM BUSINESS MEETING

About 500 rural youths will participate in the 34th annual summer session of the American Institute of Cooperation, August 5-8, to be held at Ohio State University. More than 3,000 farm leaders and young people are expected. FFA chapters will share \$2,000 for sending officers and adult advisors.

WHY NOT LEASE A TRACTOR?

If you can't afford a tractor for your FFA project, lease it! At Pleasantville, Iowa, an equipment firm has leased its first tractor under a full-service contract. The lessee gets full-maintenance service for the entire economic life of the machine . . . and pays a weekly charge.

POULTRYMAN NEEDS DETERMINATION

"I think the future is good in the poultry business for anyone with a determination to succeed," Arkansas Future Farmer Kenneth Dixon told a Junior Fact Finding Conference in Kansas City. When lots of people were losing money last year, Kenneth made money. He and Steve Bernard, Ohio FFA member, both were optimistic. But they mentioned volume and efficiency as "musts." Kenneth (see June-July, 1961, *The National FUTURE FARMER*) and his father have two 12,000-bird broiler houses they try to keep full; Steve plans 3,000 turkeys this year.

DEBT IN CROP ACRES

Farmers have indicated they will plant 306 million acres for 1962 harvest, says the USDA. If these plans are carried out, this year's acreage would be down 1.4 percent from 1961 and the smallest of record. Tobacco and soybean production will be up; corn, grain sorghum, barley, and oats, down.

AIR DROP ON SCREWORM

A specially rigged plane was used in New Mexico's first air attack on the screwworm. Sterile flies were dropped in cardboard boxes at the rate of one per square mile. When released, the sterile male flies mate with the native female fly and no eggs result. A major battle against the screwworm is being waged in a large area of the Southwest.

AIR CONDITIONING FOR PIGS?

Will your future swine housing include air conditioning? A test at the Iowa Experiment Station showed that pigs wean more rapidly, gain quicker, and have a lower mortality rate when they are in an air-conditioned house. Sows lose less weight and consume more feed. Cooling was supplied when the indoor temperature rose above 80 degrees.



SUPER-TORQUE COSTS YOU NOTHING

...if it doesn't outpull and outwear any other tractor tire in America

Our pledge

The Super-Torque rear tractor tire is guaranteed to have better traction longer and wear longer than any other rear tractor tire you have ever owned, including the original tires on your tractor.

If, in a full season's use (90 days from date of purchase), the Super-Torques do not prove to have better field traction and show less tread wear than any other rear tractor tire when used under the same conditions for a like period of time, your Goodyear Dealer or Service Store upon return of the tires will refund in cash any payment made plus any allowances made for your traded-in tires.

(This guarantee excludes comparison with special purpose Rear Tractor Tires.)

Like all other Goodyear tires, the Super-Torque is also guaranteed by Goodyear against defects in workmanship and material without limit as to time or mileage. Any Goodyear tire dealer will make allowance on a new tire based on original tread depth remaining and current "Goodyear Price."

"Angle-Braced" lugs make the difference

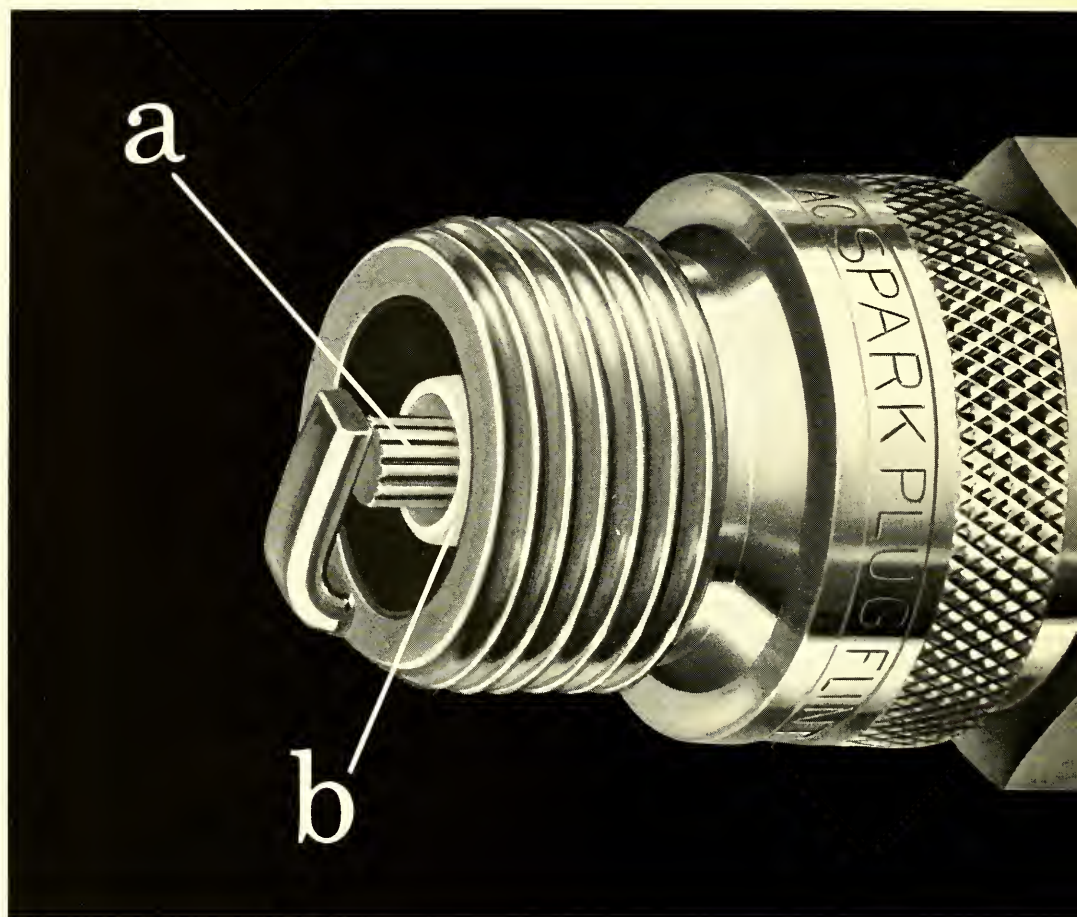
YOU BE THE JUDGE. Try a pair of Super-Torque tires. They'll outpull and outwear any other rear tractor tire you've ever used — regardless of tractor, soil or job — or we'll refund your purchase price. Every last cent of it.

That's because we know what our exclusive "Angle-Braced" lugs can do. They're longer, deeper, wider and flatter than those on any tractor tire in America. These extra dimensions plus "Angle-Bracing" make the Super-Torque the strongest-pulling, longest-wearing tractor tire you can buy. In fact, after a full year's use, the Super-Torque will probably have more traction and wear left than a brand-new conventional tire.

The Super-Torque has proved itself in field tests by more than 1000 farmers. Now you can prove it yourself — at no risk. See how much more performance Super-Torque gives you for so little extra cost. Available only through Goodyear Dealers or Goodyear Service Stores. Visit the one nearest you, today. Goodyear, Farm Tire Department Akron 16, Ohio.

Super-Torque - T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

GOOD YEAR



Why many farm NEW FARM TRACTOR

Because of the many advanced features of the new AC Heavy-Duty Farm Tractor Spark Plug, first users report these new ACs completely satisfy their particular power needs.

Here are some of the advantages of this new spark plug:

RUGGEDNESS: Withstands heavy usage because of massive new insulator top, heavy-duty shell, pressurized internal construction, fused center seal and heavy electrodes.

ADAPTABILITY: Operates in a wider range of engine

conditions due to exclusive Hot Tip and sealing features.

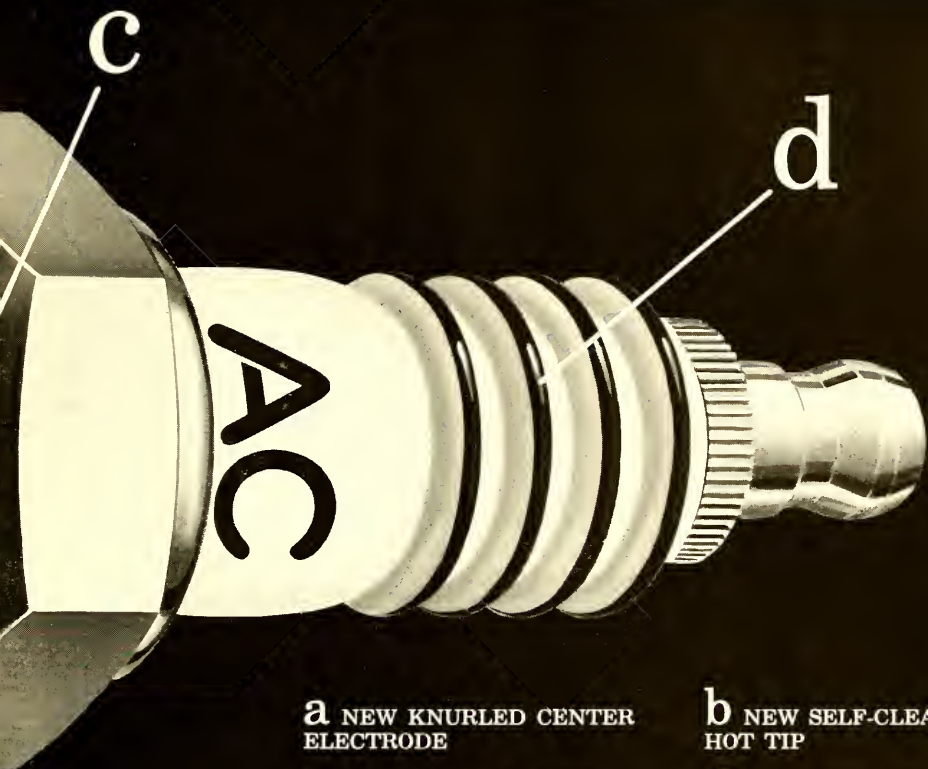
ECONOMY: Self-cleaning Hot Tip and better sparking from knurled center electrode assure peak economy longer.

PRACTICALITY: The only spark plug designed and marketed solely for farm tractor and implement engines.

See your Farm Implement Dealer now . . . ask him for the all-new AC Farm Tractor Spark Plug.

AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS

The National FUTURE FARMER



a NEW KNURLED CENTER
ELECTRODE

b NEW SELF-CLEANING
HOT TIP

c NEW NICKEL-PLATED,
HEAVY-DUTY SHELL

d NEW EXTRA-STRENGTH
INSULATOR

operators are using Heavy-Duty Spark Plugs!

FREE INTRODUCTORY OFFER!

When you buy a 4-Pac of new AC Farm Tractor Heavy-Duty Spark Plugs send in the enclosed post card and you will receive the following free service items: **1.** Gap Gauge **2.** "Hints on the Care and Feeding of Small Engines" Booklet **3.** Farm Equipment Specification Booklet **4.** Heat Range service guide **5.** "Tonic for Lazy Horsepower" Booklet.



B-K 50th Anniversary News.

NEW! SUPER CLORITAL®

a powerful new circulation cleaner.*

always
free-flowing
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No Caking—Dissolves quickly. Designed especially for circulation cleaning, SUPER CLORITAL goes into solution fast. **Rapid Soil Penetration**—Increased chlorine content and other additives give it more cleaning power. Result: thorough penetration removes fat and protein deposits quickly, prevents build-up. **Low Foaming—Rinses Freely**—Effective in all waters. SUPER CLORITAL does not require any additives to help it do the job—even in hardest water. And it rinses away easily, thoroughly.

Use **SUPER CLORITAL** for circulation cleaning of bulk tanks and other equipment. It's also ideal for circulation cleaning of tank trucks, storage tanks, lines. And your producers will find it just right for cleaning pipeline milkers, milking machines and utensils. Packaged in 25-lb. reusable galvanized pails, 100-lb. and 350-lb. drums—with a convenient measure in each package.



*it's chlorinated



B-K Department
PENNSALT CHEMICALS CORPORATION
Three Penn Center, Philadelphia 2, Pa.



Electricity on the Farm photo.

Today's bigger operations make it tougher on the beginning farmer

AS FARMS GROW larger and their volume of business increases, so does competition . . . just like when the opposing football team gets some bigger players. This prompts questions for FFA members as well as already established farmers.

"Will my supervised farming program be big enough when I get out of school? Will I be able to produce enough on each acre, in each poultry house, or each feedlot? Will I have the cost on each unit down enough to make a profit?"

In other words, "How big must I operate to compete?"

Five outstanding former FFA members have attempted answers to this question as it applies to them. Their answers reflect the bigness of farming today. They also give insight into farming tomorrow . . . and how you may want to plan the capacity of your own future farming program.

Remember, however, that these farmers have been in the game for some time. Their programs represent in-school and out-of-school efforts. It has been several years since they started out with their first calf, first garden, or other type of entry into farming.

Clarence Chappell, Jr., 1957 Star American Farmer, Belvidere, North Carolina, says, "I don't think I'll have to get larger to compete. But we will have to use our equipment and labor to better advantage."

Mr. Chappell and his father own 225 acres, rent 300. They produce 300 acres of crops, 500 swine, and handle 200 beef and dairy cattle. This requires four hired men, family labor, and push-button equipment. More equipment is to be added.

"We produce pork for around 11½ cents a pound," Mr. Chappell said. Corn averages about 100 bushels per acre, and wheat and soybeans, 25.

S. M. Davis, Hobbs, New Mexico, 1956 graduate: "Father and I farmed

1,400 acres in 1961. That is too much! We are cutting down in 1962. In our area, 400 acres per family should be adequate."

Last year, 300 acres of cotton were produced. Altogether, the Davises had eight different enterprises. These, too, are being cut—to five. Labor is a big factor. They hire from two to nine men.

Present costs of production are \$65.00 an acre for cotton, \$10.00 per ton for alfalfa hay, and \$25.00 per acre for castor beans. Gross sales, including cattle and sheep, were \$77,000 last year.

Lowell D. Baker, Garland, Wyoming: "Machinery and operating costs make it necessary to increase acreages one-fourth to one-half in this area. Between 300 to 400 acres are necessary for each set of farm machinery."

Mr. Baker finished high school in 1952, owns 160 acres, and rents 80. In a recent 12-month period, he sold 400 tons of sugar beets, 3,000 bushels corn, 2,000 bushels oats, and 1,000 hundred-weights beans for a gross of \$14,000. His is a one-man operation, with labor saving equipment. More equipment is being added. Cattle, sheep, and frying chickens are among smaller enterprises.

Burd W. Schantz, Alburtis, Pennsylvania, 1954 Star American Farmer: "It will take a dairy farm of 160 to 200 acres of cultivated land and a good herd of 50 cows, plus replacements. It will take a herd that will average 500 pounds of butterfat a year or better. I believe this type of operation under good management will be in business for years to come."

Mr. Schantz owns 110 acres and rents 77. He has 80 cattle (counting young animals) and last year sold about

\$30,000 worth of milk and other products. He employs one extra man and push-button equipment.

Ray Gene Cinnamon, Garber, Oklahoma, 1947 Star American Farmer: "A 960-acre operation seems about right here. But we'll have to expand a little in the near future when our oldest son gets into FFA work."

Mr. Cinnamon's diversified family program grossed \$18,000-\$20,000 in "two good years" (1959 and 1960). "We seem to be in about every kind of farming . . . milk a few cows, have a few beef cattle (some registered), raise Hampshire hogs, keep chickens for eggs, raise wheat, oats, barley, feed for the cattle, and our children have some calves."

But mainly he is a small grain farmer. Last year, 360 acres of wheat averaged 30 bushels per acre. About 760 acres of the land are rented.

There you have five different answers to, "How Big?"—by five young farmers successfully established. Your own answer may be quite different. Conditions vary widely in different areas.

According to F. V. Smith, Purdue University agricultural economist, an efficient manager can still make a fairly good income with a relatively small volume of business, based on an Indiana survey. However, management ability and volume must rise if better-than-average labor incomes are to be obtained.

Through vocational agriculture, you have a route to follow in developing the kind of program it will take to farm full-time. But, just how big must you get? As Mr. Smith implies, that will depend on the MAN in management.



...Party of the Second Part

A land owner at age 7



When it's wheat harvest time, Henry's big combines must roll long hours.

This is the story of Henry Nagamori, of how his birth in America gave him the right to own land, and of his outstanding FFA work.

**By
John Russell**

IT'S TOUGH enough to get started farming. But Henry A. Nagamori's parents had a special problem back in 1946. They were not American citizens. They could not purchase the land they had been leasing.

Henry could, though. Although of Japanese descent, he was born an American citizen. At age seven, he could, and did, become the "party of the second part" on a deed for 960 acres . . . and later, 160 more.

If you remember who was honored at the National FFA Convention in Kansas City last fall, you know another chapter in this Loma, Montana, Future Farmer's life. He became the 1961 Star American Farmer of the Pacific Region—one of the top four members of the FFA. The years in between contain many other interesting chapters.

Unfortunately, Henry's father died in 1954. That gave him the unofficial role of partner in farming with his mother, Mrs. Aya Nagamori. He was just starting high school and vo-ag, and this presented quite a challenge.

Henry assumed the major management and work responsibilities in cooperation with his mother. He also had the help of Mr. Gail Stensland, his ag teacher at the Fort Benton High School, and others.

By working hard and showing exceptional management skill, he was able to build substantially upon the foundation that was given him. Today you can look at a top farming program and one that is still growing.

While Henry is a "small grain farmer," this definitely has no reference to size of operation—only to what he raises. Last year he had 307 acres of winter wheat and 162 acres of barley. An additional 470 acres lay in fallow for this year's crops. There also was some pasture land for a small beef cattle project of 23 animals that is exclusively Henry's.

If you want to look back to Henry's first year of supervised farming, he had 16 acres of barley. Next year, his 16 acres went to wheat, and he had another 178 acres in 50 percent partnership with a hired hand.

In this manner, Henry grew into farming. He traded his work to his mother for the use of her machinery. Funds that had been accumulated before his father died helped him to develop his program. In appreciation for his status as a landholder, his parents had paid him an annual rent for his share of the farm.

By 1959, a year after graduation, it became clear to Henry and his mother

that both would benefit from a formal partnership arrangement. She gave him half interest in the machinery and helped to purchase some needed farm buildings. Henry did all the buying of supplies, purchasing machinery, keeping of records and farm accounts, and directing farm help. He did, and still does, consult his mother only on the sale of crops.

Henry performs all work except in haying and harvesting seasons. He works cooperatively with a neighbor and may occasionally hire additional help. Big, modern machines make it possible for him to do a lot with his labor. Among these are three self-propelled combines.

One of Henry's practices has been stubble mulch tillage, started in 1955. This is a soil and water conserving practice that he finds necessary on his farm because of its light soil. He also grows the best milling quality grains, changing to Itana wheat in 1960 for this reason. He drove 230 miles, on the advice of an agronomist, to get his first seed of this variety.

Henry's labor income from supervised farming at the time he applied for the American Farmer Degree amounted to more than \$26,000, mostly from wheat and barley. The gift of land,

rent, and one-half interest in machinery provided a substantial start toward his current net worth of over \$168,000, as did an increase in land prices. "My parents bought the land for \$23,500," explains Henry. "Today it is worth \$100,800 because of rising land values."

The American Farmer Degree application literally did not have enough room for Henry's accomplishments. He has worked hard, and aimed high. Crop judging, parliamentary procedure, farm mechanics, radio and TV programs, livestock and meats team, long-time farming program award . . . these are some of the FFA activities that led to awards and recognition.

Fellow Future Farmers named Henry to positions as reporter, vice-president, and president of their chapter. He also became Montana Star Grain Farmer and vice-president of the Montana FFA Association.

Other school activities included class president all four years, varsity football, two awards for citizenship, scholarship, and effort, and salutatorian of the graduating class in 1958.

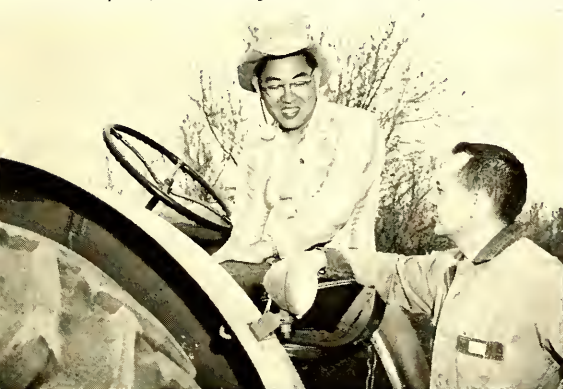
Through Young Farmer classes taught by Mr. Stensland, Henry still has a close connection with his high school. He also has done some college work, earning 54 credits with a grade point average of 2.80.

Key objectives remain the same as Henry and his mother look confidently to the future—in agriculture. They want to raise top-quality winter wheat and barley, enlarge the beef herd, and serve agriculture in the best ways they can.

"Learning to do—doing to learn—earning to live—living to serve"—these have been the guideposts. Henry's respect for the FFA motto could be matched only by the way in which he has exemplified the aims and purposes of the FFA.



"Sometimes there is only time to work, sleep and eat," Henry might be telling his FFA Advisor, Gail Stensland.



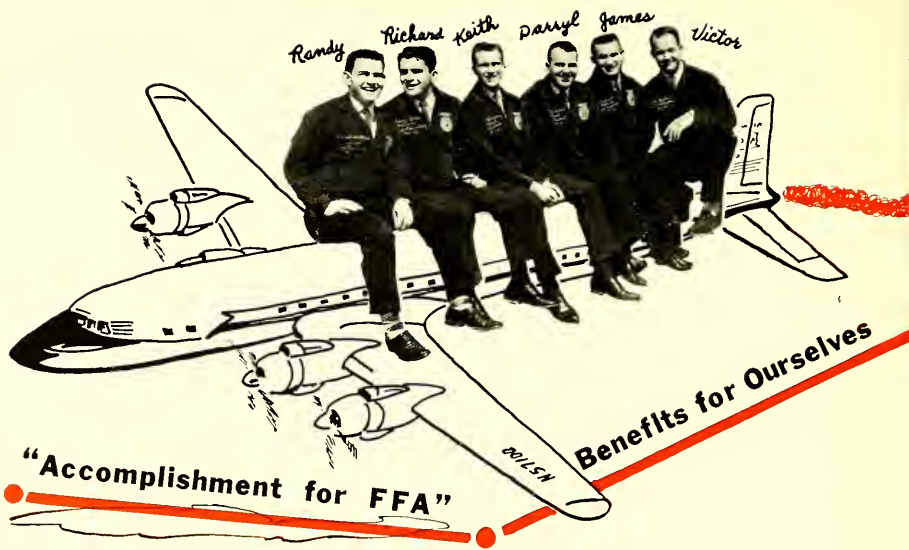
One reason Henry is a good mechanic is that he had some excellent learning opportunities in vo-ag. He maintains farm equipment in top working condition.



A conservationist, Henry keeps shelter belts in good condition by cultivating to kill weeds and conserve moisture. He uses stubble mulch tillage on cropland.

No, it isn't a cooky jar, but Henry is getting a pre-lunch snack as he talks to his mother in her modest farm kitchen.





ACCOMPLISHMENT for the FFA

Keith Simmons: "One of our biggest contributions, I feel, was relating the program of the FFA to many donors and other important people. Each of us told about some phase of FFA work and what it has done for us. Many people had questions about this, about us, and about what FFA work is doing for other farm boys across the nation. I hope, and feel, our answers contributed to a much better understanding."

BENEFITS for ourselves

Richard Black: "We were most fortunate to get to talk with some of the top men of the nation. After we told them about the FFA and ourselves, many told us about their own organizations and operations. We especially appreciated some advice about public relations and developing leadership. One man told us to 'appreciate hard work and never lose sight of the spiritual values of God Almighty.' Another told us that to be successful in public relations, 'be

sure you are right in what you promote, and tell everyone what it's all about.'"

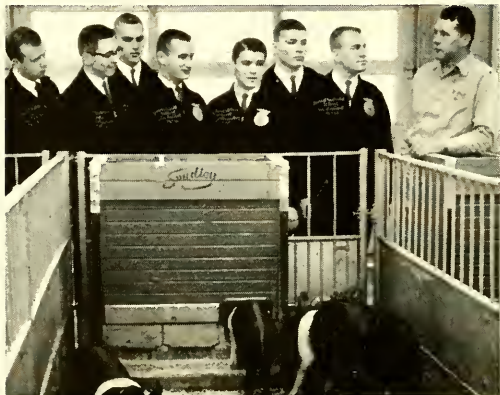
OUR visits were interesting

Darryl Eastvold: "Most of us have dozens of tires on our farms, but did you ever wonder how they are made? On one stop we saw tires start from bales of rubber. The bales are split, cut into chunks, then pellitized. Eventually, there are long sheets of rubber.

"Meanwhile, nylon and rayon cords are weaved and dipped in gum. These are added to the sheets of rubber to form plys. Another process is winding steel bead wire.

"All these layers converge at an assembling point where a man takes each layer and rolls it around a barrel-type machine. What comes off looks like a barrel without ends. This is a 'green tire' which goes to a forming and vulcanizing machine. Under great heat and pressure, the 'barrel' is molded into a tire. After a short curing, you may be using it on your farm."

Indiana state officers join national officers during an inspection of Eli Lilly Co. nutrition research facilities.



In New York City, Pfizer President, John E. McKeen, tells about inner workings of the pharmaceutical business. There were several stops in New York, as elsewhere on the route.



the goodwill tour

Our visits were interesting

Some 'funnies' too!

By train, plane, bus, and car,
your national officers traveled
more than 6,000 miles carrying the
story of FFA and vocational agriculture.

Victor Butler: "Being a supervisor of employees on our farm, I was very much interested in labor and management conditions at the large factories. I was astonished at the differences. For instance, in one factory, workers would seem cold and disinterested in their jobs, except for wages. In another, the employees were cheerful and took pride in their work. They smiled and explained what they were doing.

"In nearly every case, there was a difference in working relationships between executives and employees. In some factories, the foreman spoke to his workers with an attitude of being superior. They resented this. In several other plants, the executives called their workers by name and the workers spoke back cheerfully, using first names. This gives the employees the feeling that their bossman is a good egg and that he wants to be on a level with them. Maybe we could summarize with one word: teamwork."

Keith Simmons: "All the places we went, all the things we saw, and all the people we met were interesting. One thing that stuck with me is that nearly every person we met has at one time or another had a direct relationship with farming. I shall also never forget the statement made by one executive: 'I always like to hire farm boys because they have learned to work and will always do a good job no matter what it may be.' To me this is significant of the value of training we receive in farming and the FFA, no matter where life may lead us."

SOME "funnies," too

Randall McCutcheon: "I think the funniest thing was when we stayed overnight at Kansas City. We had to get up early to catch a 6:30 plane to Little Rock, Arkansas. At 6:10 we were all at the airport, ready to go. That's when one of the officers, who was especially sleepy, found he didn't have his ticket. In 20 minutes, he caught a cab to the hotel, got them to unlock his room, and arrived back at the airport with a few minutes to spare. Talk about someone in a hurry!

"It just wasn't this officer's day. When the plane landed in Little Rock, it was pouring down rain and the wind was blowing hard. A gust of wind caught his hat and off it went into a puddle. An attendant came to the rescue. Still looking out of sleepy eyes, he commented: 'Well, gee whiz!'"

Anyone for moon farming? At Goodrich Tire Co., John T. Callahan describes space suits used by our astronauts.



Gov. Albertis Harrison, Jr., greets FFA president just prior to address by Victor before the Virginia Senate.



A plus feature was a visit to Goodyear Farms, Litchfield Park, Arizona. Through irrigation, this formerly arid land produces up to 2 1/2 bales cotton per acre; six tons alfalfa.





"All Around Cowgirl," "All Around Cowboy," and "Uncle" Wes are always the top personalities at this FFA event.



It's time to grab for air, as a "cow buster" leaves the chute on a bucking, determined animal with lots of spunk.

PUTTING on a burst of speed, a strapping young Future Farmer laid a flying tackle on 175 pounds of squealing, well-lubricated pork and held on with a vise-tight grip. A voice boomed out from the roaring crowd: "If they don't give you a prize, son, take the pig home." Then, covered with tractor grease from chin to a rip in the knee of his jeans, the pig's captor grinned back through his grime.

The event: A greased pig scramble at the Sierra Union High School Future Farmers of America rodeo. **The setting:** An arena deep in the Sierra Mountain range foothills near Auberry, California. **The mood:** Jovial.

Each year about 1,000 parents, relatives, friends, and just plain spectators wend their way down the Wes Qualls ranch road to a tree-lined arena. A rodeo can be held in spring, summer, or fall, but they come to watch this FFA chapter climax the school year with a Sunday afternoon of spills, chills, and just plain fun.

The air of informality is apparent almost as soon as you catch sight of the spectacle—people watching from bleachers, cars, and from horseback; children playing tag among the trees; high school cowboys and cowgirls perched on fences, talking, joking, and waiting their turn to compete.

A crew-cut cowpoke settles down on a three-year-old cow, wild from roaming the range. "Atta boy," says the chute man. "Sit on the rope! Forward more! Now you're okay."

"Let her go!" comes the reply, and the cow bursts from the gate, hampered only a few seconds by the windmilling cargo on top. The would-be cow buster picks himself up out of the dust, looks down in disgust, grins a bit sheepishly, and the procedure begins again.

FOOTHILLS RODEO

"The times and the rides these boys make out here won't set any world records," remarked Johnny Jones, owner of a pack train in the high Sierras and one of the judges for the day. "But a lot of good rodeo stars such as Bob Muller and Wayne Tex have begun amateur or professional careers here."

In the background an announcer draws, "Hey, one of you cowboys drag your boot heel across the arena to give the girls a starting line. You got it Shorty? Okay girls, ready for the boot race?"

And so on it goes, all Sunday afternoon. Even when the winners are announced and the stock turned back on the range, highlights of the afternoon will be topics of conversation for months.

What goes into making up this unusual FFA event, which takes the place of barn dances and banquets for this foothill chapter? Kenneth Olson, FFA Advisor at Sierra Union, hunkered down on a log and summed it up in one sentence. "It's the people up here," he said.

"You couldn't do a thing without them. A committee of Future Farmers makes the plans every year, and they work hard at it, and the ranchers and parents deserve a lot of credit."

As if to punctuate Mr. Olson's statement, a rancher approached to inform him that a cow which had stumbled out of the bucking chute had suffered a broken leg. "That's too bad," an-



Smiling, but grimy, a Future Farmer comes up captor of the greased pig.

swered Mr. Olson. "Look, if we make enough profit today, we'll help pay for the cow." "Nothing doing," came the quick reply. "If we didn't expect these things to happen, we wouldn't bring our stock out here." "See what I mean," emphasized the instructor.

A youngster approached and announced: "Gee, Mr. Olson, I placed third in cow riding. I sure didn't stick very long on that old cow."

"Apparently the judges thought you made a good ride," Mr. Olson replied. "Congratulations!"

The only other comment anyone could make is the time-worn picnic cliché: "And a good time was had by all."

—By James Williams

MY! AGRICULTURE, how you've changed," today's Future Farmer might say as he stands on the threshold of graduation. Compared to Dad's day, it is larger, stronger, more versatile, and so sophisticated it even has taken a new name—"Agribusiness."

More than 500 different types of careers are possible. In production alone, for example, you can be a beefman, dairyman, swineman, sheepman, poultryman, grain farmer, vegetable grower, fruit grower, greenhouse operator, timberman, cotton farmer, flower grower, nursery stock producer, apiarist—or, perhaps, any combination of these.

The whole agricultural family has changed. Fewer people are needed to actually till the land, but the family now includes, in addition to production, the processing and distributing of farm products, and the providing of supplies and services to farmers.

Behind these opportunities, of course, is something you've probably heard ever

FARMING
RANCHING

Research

Industry

BUSINESS

Communications
SERVICES

Conservation
Recreation

Careers in agriculture

since you enrolled in vocational agriculture. The future belongs to those who prepare for it. With machines doing more and more work, a new type of laborer is emerging whose head is more important than his muscles.

A breakdown of major opportunities is given in a booklet prepared by Land-Grant colleges and universities entitled, "There's a New Challenge in Agriculture." You can get a copy from your own state Land-Grant school.

Farming-Ranching

Farming offers some of the most challenging career opportunities. It is an expanding enterprise requiring large amounts of capital and plenty of technical knowledge. The successful farmer will continue to be one of America's most important citizens. He is a key man in the nation's economy—and he has the opportunity of outdoor living and working on his own—something that few others are privileged to enjoy.

Research

Farm production has advanced more in the last 50 years than in all the preceding years. Research is the big reason. Agriculture looks to research for new machinery, what's new in nutrition, genetics, disease control, processing, marketing—yes, and even newer areas, such as radioactive elements, radiation,

electronics, solar energy, and wonder drugs.

Education

More than 2,000 new teachers go each year to high school vo-ag departments, agricultural colleges, and the agricultural extension service. Never before has the demand for teachers been as great.

Industry

Agriculture requires engineers, scientists, technologists, production men, and salesmen. Farmers pay approximately six billion dollars a year for tractors, motor vehicles and machinery, and for their fuel, lubricants, and maintenance. Specialized industries process the products of the farm, package them, and take them to the consumer.

Business

Agricultural finance, insurance, transportation, storage, grading, and sales provide job opportunities. Workers enter the wholesale and retail marketing of agricultural products and manage private and cooperative businesses which sell to the farmer or move his products.

Services

Government agencies, state departments of agriculture, and foreign service employ agricultural college graduates in increasing numbers. The largest employer is our federal government.

Communications

Colleges, extension services, experiment stations, market reporting agencies, newspapers, farm publications, advertising agencies—all need people who can tell the story of a developing agriculture.

Conservation-Recreation

More people than ever before hunt, fish, boat, camp, swim, picnic, and go sightseeing. This calls for more parks and public recreation areas, better use of those we have, and careful supervision and management of all of our natural resources.

Yes, agriculture has changed and the opportunities are vast for the young man who is prepared—with training he can get through vo-ag, college, young farmer classes, and self-education.

If you decide to go on to college, there might even be two jobs waiting. Agricultural colleges have been unable to keep up with the demand for graduates.

The future is foretold, according to Clemson College, by a world which gives birth to a new South Carolina every three weeks and to a new United States every four years. About four billion people are expected by 1975—one-fifth the number born since Adam and Eve set up housekeeping. All must be fed, clothed, and sheltered. ♦♦♦

BEING a target is dangerous. You wouldn't let someone try to shoot an apple off your head with bow and arrow like William Tell. Nor would you volunteer to hold a tin can for fellow Future Farmers to shoot at with a rifle. But, what if you don't know you are a target?

Unfortunately, this is the case. You are a target right now, and you have every right to get mad about it. Government investigation shows world communism has made the American educational system—from the nursery school through the universities — a primary target for propaganda, espionage, and infiltration activities.

How do you, as a Future Farmer, meet this attack? A rule you have probably heard in sports—the best defense is a good offense—will help defeat the communist menace. Just by knowing you are a target gives you an advantage. Your own clear thinking when you have the facts gives you further advantage. Herein lies much of the difficulty, because getting the facts may not always be easy.

You have yet another advantage as a Future Farmer of America. As you already know, your FFA advisor, unlike some adults perhaps, has great respect for you as a person. He considers you capable of understanding right from wrong and making the right decision in almost any situation. Feel free to seek information from him about the evils of communism.

By
Howard R. Carter

Look upon all your teachers as good Americans, but remember you also have a responsibility to learn for yourself what doctrines pose a threat to your traditional freedoms.

There are three main areas in which you can take the offense against communism. The first is religious. The Communists have been trying for 40 years to stamp out all religious thought in Russia. Why? Mainly because belief in a Supreme Being is the basis for faith in, and recognition of, the worth and value of our fellowman as an individual. Atheistic communism teaches and practices that the individual is not only the servant of the state but the slave of the state. He exists for the state and is dealt with as mere property of the state.

The First Amendment to our Constitution guarantees us freedom of religion. By practicing your religion, believing in a Supreme Being, and protecting your constitutional freedom of religion, you take the offense against communism.

The second area for offensive action is to inform yourself on communism's record. Words are one thing, deeds another. The slave labor camps, the mass murders of tens of thousands are not propaganda. These things happened and are still happening. According to a U. S. Senate report, the Russian Communist

government has broken or ignored nearly a thousand treaties and agreements since 1917—treaties and agreements made with practically all the nations of the world.

Russian propaganda would have you believe communism is popular with the peoples behind the Iron Curtain as proven by the great numbers now being governed by the Communist party. The truth is, the overwhelming majority of these people did not "swing over." They were forced over.

By knowing communism's true record of criminal acts and oppression, by knowing the true record of so-called gains and progress in space, industry and science, and the terrible cost of these meager gains in terms of human suffering, you can help create a new pride and awareness of the truly great progress made by our own free-enterprise system.

The third area for offensive action, and one in which many FFA chapters and state associations are already doing a great deal, is simply reviving patriotism and Americanism. There is much you can do, both as an individual Future

COMMUNIST

Your best defense is a good offense against
a threat that is aimed at all America,
including our great educational system.



TARGET

Farmer and as a chapter, to defend your American heritage.

In the Aims and Purposes subscribed to by every Future Farmer is the specific purpose of developing character, training for useful citizenship, and fostering patriotism. Useful citizenship means knowing our Constitution and our Declaration of Independence. It is well to keep in mind that there are those persons, perhaps with good intentions, who would unknowingly undermine our Constitution and freedoms.

Believing in and loving America as "the land of the free and the home of the brave" doesn't mean you are any less concerned for the hungry, poverty-stricken people in the under-developed nations of the world, or for those less fortunate than yourself here in our own country. It stands to reason that we can help them more by staying free and strong, both as individuals and as a nation.

Remember always that there is nothing "old hat" about patriotism, nor is it "kid stuff" to feel and express a duty to God and country.

THE AMERICAN'S CREED

"I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign nation of many sovereign states; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice and humanity for which American patriots sacrificed their lives and fortunes. I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag; and to defend it against all enemies."

William Tyler Page

EARLIER this year the Louisiana State FFA Association developed a suggested FFA Americanism program. Its 12-point program is given in the box below. Announcing this program in the January issue of the state FFA publication, Mr. C. P. McVea, Louisiana state FFA advisor, said, "I urge each of you to study the history of America's development and progress and compare it with the record of slavery, mass murder, and poverty imposed upon the people of communist occupied countries. I believe such a comparison will give a new meaning to your pledge of allegiance to the flag of the United States of America. I admit Uncle Sam has his faults, but he beats any other country I know of by a country mile."



Mr. C. P. McVea, State FFA Advisor
Louisiana FFA Association.

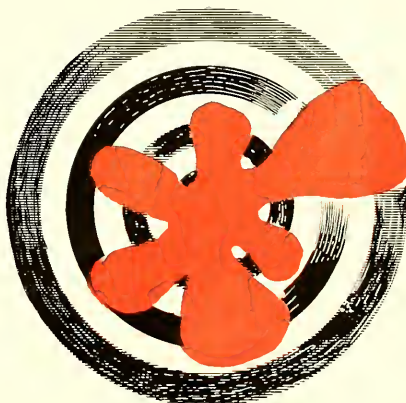
LOUISIANA'S

SUGGESTED FFA AMERICANISM PROGRAM

1. Sing at least one patriotic song at all chapter meetings.
2. Display a 50-star flag of the United States in meeting room and classroom.
3. Require the Pledge of Allegiance to the Flag as prescribed in the closing ceremony of chapter meetings.
4. Teach flag etiquette.
5. Encourage individual FFA members to display flags on national holidays.
6. Memorize and recite on all possible occasions the "Code of Conduct for Victory over Communism:"

"I will never forget that I am an American citizen, responsible for my actions and dedicated to the principles that made this country free. I will trust in God and in the United States of America."
7. Encourage chapters to procure and sell American flags to individuals as a public service.
8. Have a chapter member lead the salute to the flag at general school assemblies.
9. Promote Americanism in all assemblies and meetings.
10. Encourage FFA public speakers to use anti-communism themes in speeches.
11. Local FFA chapters should encourage and participate in flag-raising ceremonies at school.
12. Chapters should sponsor and put on patriotic programs for assemblies, meetings, radio and TV.

YOUTH





Checking his cattle, Jerry finds them almost ready for market. He keeps close records, always knows investment.



A smile is a trademark and so is good humor. A major part of Jerry's spare time is spent in this convenient "study."

Inspiration on Wheels

By John Russell

THE WHEEL CHAIR seemed out of place in the stockyards . . . but there it was, right in the middle of the cattle alleys. A gold emblem reflected the bright sunlight. Its occupant was a Future Farmer with a big broad smile.

This was my introduction to Jerry Vogel, FFA member, cattleman, and polio victim. Maybe you wonder what was behind the smile and obvious fortitude. It's a lot . . .

Jerry lost the use of his arms and legs when he was in the fourth grade. Only enough strength remains in one arm to control an electric car he uses on his father's 518-acre farm, and to flip book pages. Otherwise, what he lacks in physical abilities, Jerry makes up for in other ways.

Teamwork! That is how it's done . . . cooperation with devoted parents, teachers, fellow Future Farmers, and other students at the Lawrence, Kansas, High School.

Take cattle feeding. Jerry and his father, Mr. John Vogel, go 50-50. Mr. Vogel cares for the things outside; Jerry does the bookwork—at least a large part of it. Mrs. Vogel handles the pencil and writes down what her son wants in the record book. They also work together on things like writing checks for feed, school lessons, and, yes, maybe even a game of cards.

Jerry has fed out 24 cattle this year, his senior year. He fed three as a Green Hand, after getting a start with a single calf at age nine. He also has had 12 acres of crops.

At school, classmates like Larry

Tuckel, Star Chapter Farmer in 1961, and Larry Green have helped see to it that Jerry gets around to classes. He works hard on lessons and, as both Larrys admit, "He can make it tough on us in a test." A set routine for spare time is school work first, newspaper reading second (including sports and "Peanuts"), and magazine reading third. Any time left over goes for TV.

While classmates did shop work in vocational agriculture, Jerry worked on farm management assignments prepared by his teachers, Messrs. Roy Cropp and Walter Gehlbach. He was senior room captain in FFA public speaking and has participated in many other activities.

Jerry's love for sports led to a "manager's letter" last fall. During football games, he watched locker rooms to make sure unauthorized persons stayed out.

Field trips—a popular activity for advanced ag students—did pose a problem. After talking it over, Jerry, his parents, and his teachers decided it was best for him to switch to business courses during his senior year.

He kept up membership in the FFA, however. "One thing I like about FFA is being with other boys and taking part in all the activities," he says. He really got a bang out of the national FFA convention.

After graduation, Jerry hopes to go on to Kansas University, the rooftops of which are visible from the Vogel farm office. A sister already is enrolled there. He says he would like to study mathematics or bookkeeping,



Project figures and school lessons are recorded by Jerry and Mrs. Vogel.

and maybe teach school some day. His father majored in business.

Meantime, Jerry has caused each FFA member at Lawrence to think a little deeper of the many blessings each has. He has inspired fellow members to want to participate and be a part of competitive events. He has radiated joy and enthusiasm for the opportunity to attend school. He has shown that he can work and have just as much fun as anyone else.

"For those of us who know Jerry," says Mr. Cropp, "he has meant leadership, cooperation, and sportsmanship—three golden qualities we like to see in every Future Farmer." ♦♦♦

2 new models from International ...sized, powered and priced to boost your farm earnings!

NEW ALL-PURPOSE C-130 (4x4)

Step up to this newest all-wheel-drive model in the famous INTERNATIONAL C-Line and you've got a "man-sized" truck to do your work.

Fitted with 8½-ft. pickup or 9-ft. stake or platform body, its 10,000 lb. GVW rating gives you the *capacity* to haul hefty loads — plus the power and all-wheel-drive to work them *anywhere*. New features include kick-down design frame for easier loading... huskier channel bumper... tie-rod now *behind* front axle... variable ratio steering for rough going... heavy-duty 3-speed synchromesh transmission... 4,000 lb. rated front drive axle.

Proven INTERNATIONAL V-8 engine standard. Bigger V-8 and economy 6 also available.

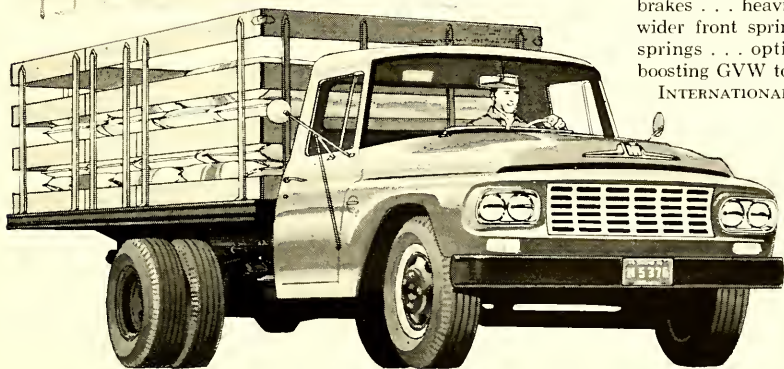


NEW COST-SHAVING C-150

Rated at 14,000 lbs. GVW, this new medium-duty truck is built to haul bulky loads—and you don't have to pay any premium price for it.

Here are just a few of the new features on this dual-rear-wheel workhorse: big power brakes... heavier-duty channel frame... wider front springs and standard auxiliary springs... optional 2-speed rear axle for boosting GVW to 15,000 lbs.

INTERNATIONAL truck-built 6-cyl. engine standard, more powerful V-8 optional. Nine or 12-ft. stake or platform body. See your nearest INTERNATIONAL Truck Dealer or Branch for a demonstration. International Harvester Co., 180 N. Michigan Ave., Chicago 1, Illinois.



INTERNATIONAL® TRUCKS

WORLD'S MOST
COMPLETE LINE





The 187 members of the Canby, Minn., FFA Chapter donated \$200 for needed playground equipment at their city park. The city matched this with \$200 more.

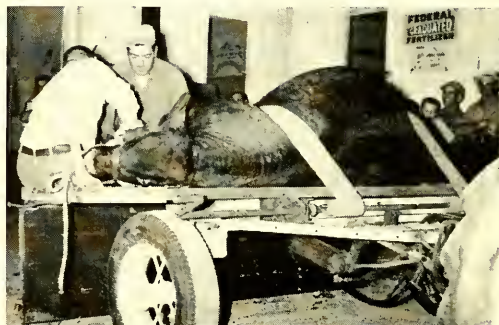


Ed Dannemiller, Burlington-Edison FFA member in Washington, raises and sells Chinese pheasants, has 20 at present.

photo

roundup

Future Farmer Wayne Phenice showed top steer at state show in Louisiana, got \$2 a pound for the 1,050-pounder. A student at the Welsh High School, his advisor is Charles Daggett (left).



Bethany, Illinois, FFA members built a portable tilting table for use in treating or working with large animals.

A modified "Barnyard" idea was used by four Rice-belt Chapters in Texas to acquaint city people with FFA during 1962 National FFA Week. Shopping center paid costs of the show.



CONTROLLED GRAZING RETURNS \$2217 PER SECTION OF UPLAND RANGE

The topic of the day in all walks of farm life is how to increase income without increasing expenses. Researchers and practical farmers have found some ways. One of the surest is the simple practice of controlled grazing. They have found pastures produce more when grasses are not grubbed into the ground.

Research Proves Range Value

Native short grasses on non-irrigated upland range at the U.S.D.A. Central Plains Experimental Range in Colorado produced more than 10,000 pounds of beef per section in a six-month pasture season. Management of grazing was the key to increased production. Adequate fencing made it possible to rotate grazing and stock each range according to its carrying capacity.

Using a value of 22 cents per pound of beef, the ranges returned good incomes—averaged more than



\$2217 per section. Best of all, other expenses were low. Even the cost of fencing was low in relation to the income from added beef gains.

More Beef—Same Ranch Size

Ranchers can produce more beef per section by merely managing their range lands according to the growth of the grasses. They can

either carry more cows or feed the calves to heavier weights. Either way there's more profit in beef ranching. Investment in additional land is not necessary. Land charges; such as taxes and interest, can be distributed over more pounds of production. That means more profits.

FREE Pasture Information

How to manage pastures and produce profitable livestock is the subject of a new booklet entitled: *Pasture—How to Reduce Feed Costs*. It is available FREE from Keystone Steel & Wire Company, Peoria, Illinois. We'd be happy to send you a copy on request. Pasture renovation, reseeding, grazing management and fencing are covered in detail. It also contains many, many reports on pasture research studies. It is chock-full of useful information. Why not ask for your FREE copy today?

Get Low-Cost Beef Gains ... use **RED BRAND® FENCE**

Divide your pastures with RED BRAND fencing and you have a double-barrel profit tool. You get extra forage production plus the economy of long-lasting RED BRAND Galvannealed® fencing.

Good fencing makes rotational grazing a profitable practice with all kinds of livestock. Pastures produce more forage, consequently more beef, pork, lamb and milk.

Galvannealing is an exclusive process of RED BRAND that fused the zinc coating deep into the wire. It makes RED BRAND woven and barbed wire resist rust and last longer.

Match RED BRAND fencing with RED TOP® steel posts and you not only boost pasture profits, but you also get the best looking farm fence available anywhere.



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How to Reduce Feed Costs**

Keystone Steel & Wire Company
Dept. 3003, Peoria, Illinois

Please send me your FREE booklet,
Pasture—How to Reduce Feed Costs

NAME _____
POSITION _____
ADDRESS _____
CITY _____ STATE _____

LESSON LEARNED

*... with a
little red
wagon!*



This is the way things started.
Now Jim's business is a big one.

People like quality products, this
Future Farmer found out at an early age.
His egg route grew, and grew, and grew.

TO PREPARE yourself for a future in poultry husbandry means you have to learn a lot of new things about a fast-changing industry. No other farm business has changed more.

In marketing alone, a minor revolution has been going on. Farmers with a top quality product and with good marketing practices have been the ones to stay ahead.

A good example of someone who has built an egg business in the face of these changes is Jim Teets, a West Virginia Future Farmer whose father joined in when success seemed imminent. Jim is a 6' 1" graduating senior with an eye for beef show cattle. But you would likely hear more about poultry if you were to visit the little town of Terra Alta, high up in the Alleghenys.

"Jimmy Teets and his little red wagon" . . . that's the way people remember this regional winner of a national FFA poultry farming award and State Star Farmer. As a nine-year-old, he pulled a coaster wagon all over town on Saturdays to peddle eggs.

Jim started out with 200 chicks on a \$200 bank note signed by his mother. The business grew (like Jim), for one thing, because he started out stressing quality. Housewives liked his good eggs (and still do)—not to mention the appeal of a nine-year-old salesman.

Jim sold his grade A eggs for 50 cents a dozen the year 'round. Demand overtook supply. That's when he talked his father, Clem Teets, into building a bigger poultry house for 350 hens. Mr.

Teets was repaid with profits over a two-year period.

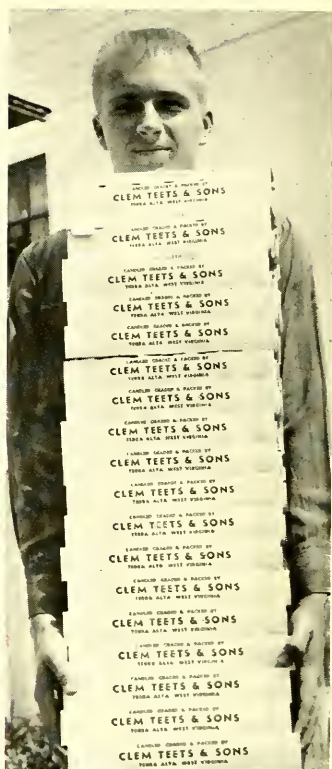
It was just before Jim entered high school that Mr. Teets, both a farmer and an oil distributor, decided he, too, should get in the egg business. A partnership was formed and a two-story, 120x32 laying house was constructed. It was the very "latest" with automatic equipment—and still is one of the most modern houses you'll find.

Jim assumed 25 percent of the cost of everything in return for one-fourth of the profits. Again he borrowed money from a bank. He provided half the work and management responsibility. This proved a good arrangement, and it still is in effect.

The first FFA project, naturally, was chickens. Long before Jim entered high school, he had known Mr. B. F. McConnell, the local FFA advisor and vo-ag teacher. And Mr. McConnell knew about Jim's chickens. Together, and with Jim's parents, they kept the enterprise moving ahead.

Today, Jim and his father keep 6,000 hens. They established delivery routes to stores and restaurants over a 60-mile radius. A truck was added and another man was employed. They developed their own specially printed cartons. Display coolers were placed in stores to maintain quality.

Supervised farming records show such things as housing 95 percent of the pullets started, an average of 240 eggs per bird, and an average cost of 28 cents per dozen, including bird depreciation. But it was quality—as it always had



Personalized cartons were designed,
used until recent marketing change.

been and still is—that really "moved" the eggs.

Only recently Jim and his father leveled off. Jim will be off to college this fall, responsibilities in other areas have increased for both men, and brother Bob still is in grade school. They worked out a marketing agreement with another poultry farm and now are concentrating on production.

Jim learned, as Mr. McConnell points out, "to produce something people like." He has applied the same principles to another growing FFA project—his Angus cattle. A flock of sheep, purchased last year, will be handled accordingly.

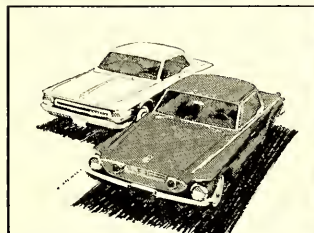
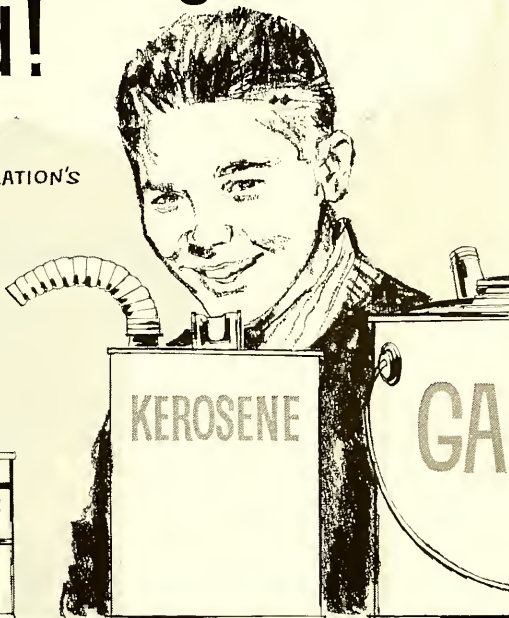
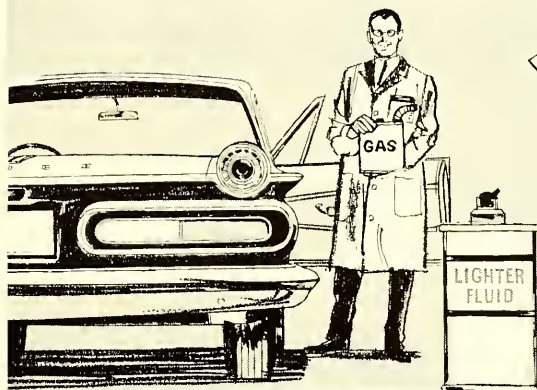
Jim's plans? A degree in animal husbandry. Perhaps he will stay on the 120-acre Teets farm, maybe not. But he wants to stay close to livestock and probably chickens, too.

The growth of his supervised farming projects (he had 16 cattle last year) makes it possible to go either way—or both. And the lesson learned with the little red wagon should assure some kind of success.

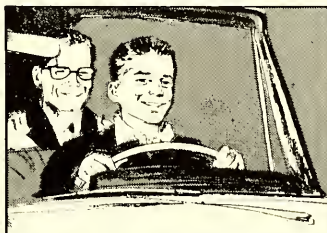


It runs on kerosene, gasoline, or lighter fluid!

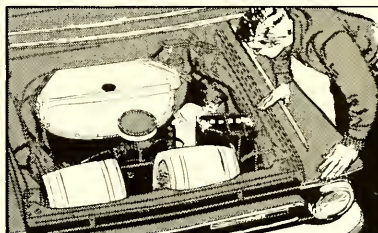
BILL WEAVER CHECKS OUT CHRYSLER CORPORATION'S
REMARKABLE NEW **GAS TURBINE CAR**



"Hang onto your hat when the Turbo Car takes off—it's like riding in a jet! In a recent cross-country test it averaged over 50 MPH under some pretty tough conditions, including city traffic and narrow mountain roads. With diesel fuel this engine has delivered 19 miles per gallon."



"The gas turbine has only 1 spark plug and only about 1/5 as many moving parts as regular engines. It's smaller—doesn't even have a radiator, because it's air cooled. You never have to worry about antifreeze. And it starts instantly, needs no warm-up, even in the coldest weather."



"It works like a jet engine! Air is sucked inside the gas turbine intake, compressed, and then heated by the burning fuel (almost anything that flows through a pipe). The result is a fiery tornado of gas that turns the turbine wheels which work the compressor and deliver the power to the wheels of the car."



"Will this be the engine of the future? There are two practical models right now—the Plymouth Turbo-Fury and the Dodge Turbo-Dart. But Chrysler Corporation engineers believe there will be some modifications before the gas turbine car goes into mass production."

If you'd like to get more facts on Chrysler's Turbo Car, ask Dad to stop by the dealer's with you, and ask for the booklet "The Remarkable Gas Turbine Car."

Chrysler Corporation

Where engineering puts something extra into every car
PLYMOUTH • VALIANT • DODGE • DART
LANCER • CHRYSLER • IMPERIAL



QUESTIONS and ANSWERS

ABOUT SPRAYING

You can do a better job of farming with today's equipment and chemicals



LeRoy Asher, a Nebraska FFA member uses boom sprayer for pasture weeds.

Hand gun helps Gary Klein eliminate weeds in fence row with 2,4-D spray.



Livestock free of parasites do better and will be ready for market sooner.



Weed-free corn is result of herbicide treatment when the field was planted.

WHEN WARM weather comes, insects begin stirring. Continued warm weather keeps them thriving—the same as weeds and many plant diseases. One answer to these threats can be a good spraying program.

But just what do you need to do? Perhaps you'll want to study the following questions about spraying and answers given by sprayer experts.

What kind of sprayer should I own?

Most farmers, especially if row crops are grown, should have a boom sprayer and add a hand gun and hose. Jet or boomless sprayers are satisfactory for non-row crop spraying. If little or no field spraying is to be done, mostly buildings, livestock or weed patches, a hand-gun unit is usually sufficient.

What size sprayer is best?

Most farmers choose the 6-row or 21-foot boom sprayer. It will spray 10 acres an hour at 4 miles an hour, not counting the time for reloading. Increased coverage can be obtained with regular boom sprayers by putting jet nozzles on the ends of the boom.

What size nozzles are best?

Some firms provide 5-gallons-per-acre nozzles, some 10, or other sizes. Larger volume gives better coverage, especially on thick foliage, and because the chemical is diluted in more gallons of water, there is less chance of damage by incorrect application.

Why is tank capacity important?

It is one of the major factors in determining the number of acres a day that can be sprayed. Refilling time usually takes one-half an hour or sometimes longer considering time taken in going to and from the source of water supply, filling tank, and adding chemicals, etc.

How much pressure should I use?

Always use as little as necessary. This will prolong the life of the equipment.

Pressure alone can cause excessive wear. In some instances too much pressure will damage the plants, as for instance legumes.

For field spraying with a boom or jet-type sprayer, usually 40 to 60 pounds pressure is enough. As you increase the pressure, the droplets become finer so there is more chance for drift which could cause damage to sensitive crops in nearby fields. For hand-gun spraying, usually 75 pounds to not over 100 pounds is enough.

If more penetration is needed, as on dusty crops or getting through wool or hair on the hide of animals, add detergent to the chemical mixture. One or two cups of household detergent (use non-foaming type where possible) will work wonders in a 55-gallon tank of spray material.

In a test at Iowa State University, 70 pounds pressure with the use of detergent did as effective a job on sheep as 300 pounds pressure without detergent.

What material should I spray and how much should I put on?

The material and amount vary with different crops and even with varieties of crops as well as different geographical locations. The United States Department of Agriculture annually issues insecticide recommendations, Agricultural Handbook No. 120, which you can buy for 70 cents from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Your vo-ag teacher or county agent should also have information about controls for local crops.

Spray firms will be glad to give you such information, as will your State Agricultural College. If there is a liquid fertilizer processing plant in your locality, contact them and they will be glad to give you information about liquid fertilizer applications.

How do you clean a sprayer?

After spraying, fill the tank with clear water, open all valves and let the pump flush the clear water through the entire system. Two or three tankfuls of clear water should be used. As an added precaution after using a weed killer, add household ammonia to the water to neutralize any weed killer that might be left in the system.

What is the annual cost of owning a power sprayer?

According to Kansas State University, using straight line depreciation with an expected life of 10 years and a 10-percent salvage value, it is 14 percent of the original cost. This includes depreciation, interest, taxes, insurance, and housing. It does not include chemicals or labor. This is known as "cost of ownership."

◆◆◆

Discoveries in chemistry that help you farm better



Hornflies can worry away more than 20% of a cow's milk production. But now it's the hornflies' turn to worry. This

30-second rubdown with Du Pont "Marlate" methoxychlor keeps hornflies off cows and their milk production up.

The 30-second rubdown that helps keep milk production up

Take a rounded tablespoonful of Du Pont "Marlate" methoxychlor just as it comes from the bag, a dry powder. Rub it in the hair along the cow's back, and hornflies will steer clear of that cow for about three weeks!

Easy, fast, convenient... This rubdown just didn't happen. When methoxychlor was first discovered by Du Pont, it was used as a spray. But the search for the easiest way to help you fight flies continued. This research led to the discovery of the hand-dusting method. Then extensive testing showed that this—the simplest of all ways—was the best.

What could be easier or more effective than hand dusting? There's no waste; it's fast; it requires no equipment; and, most important, enough methoxychlor stays on the cow to keep hornflies off as much as three weeks—yet it leaves no residue in the milk, when used as directed.

Controls forage-crop insects, too . . . "Marlate" methoxychlor is also vital to dairymen as a spray for forage crops. In fact, more state agricultural colleges recommend methoxychlor for control of more forage-

crop insects than any other insecticide. It kills alfalfa weevil larvae, leafhoppers, spittlebugs, alfalfa caterpillars and many other pests which cut yields by as much as a half ton per acre and reduce protein and vitamin A content as well.

Important as it is to dairymen, methoxychlor is also helpful to fruit and vegetable growers and for home gardeners. Here again, it is not only effective against a wide range of insects, but its residues are low in toxicity to people and animals. Providing an unusual combination of useful properties, methoxychlor is one example of Du Pont discoveries in chemistry that help you farm better.

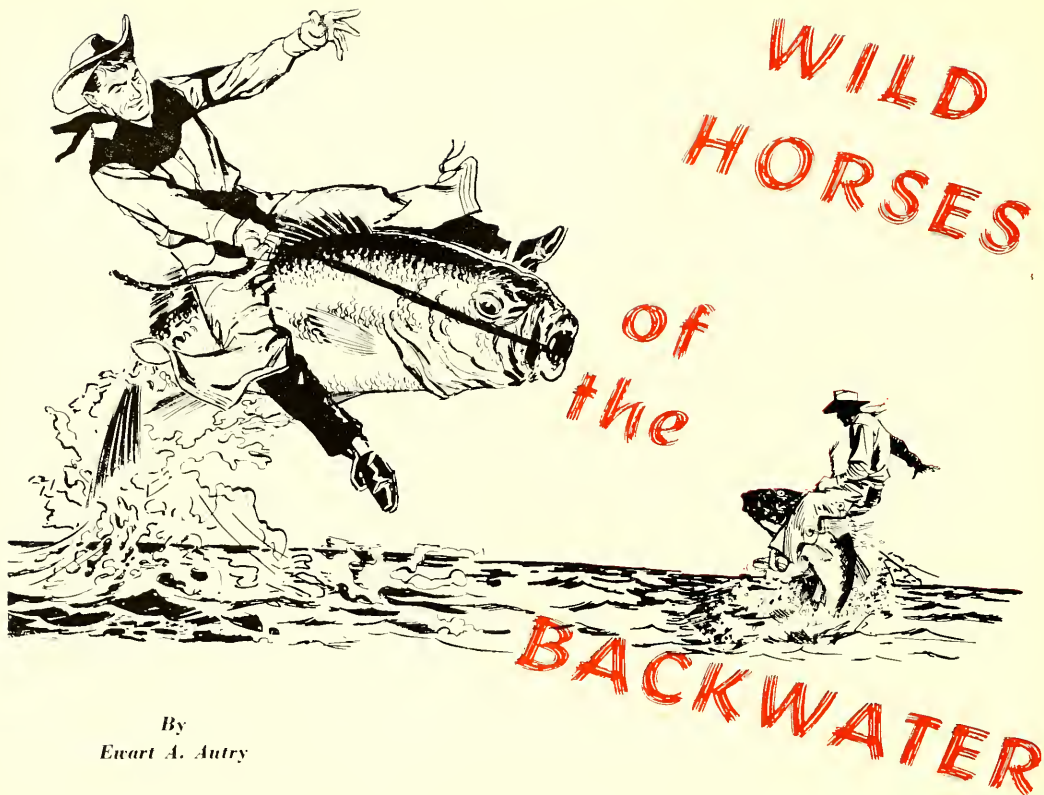
On all chemicals follow labeling instructions and warnings carefully.



REG. U.S. PAT. OFF.

Better Things for Better Living . . . through Chemistry

CHEMICALS FOR AGRICULTURE



By
Ewart A. Autry

IT WAS A day of rain and expectancy among the sports lovers of our southern community. May had come and dwindled past the halfway mark before it had brought such a day. But now, at 8:00 a.m., the waters of our small river were spilling out of the banks and spreading slowly over the fields and woods.

Two dozen of us had gathered at the edge of the bottomland and were watching the water closely. The rain had become a drizzle and a lazy fog was drifting up from the muddy water. Suddenly there was a splash on the river side of the patch and a big fin came slicing through the surface of the water toward us. In a few moments there were other splashes and other fins. Soon the water among the weeds was in constant motion and the weeds trembled as fish cut rapid paths through them.

The wild horses of the river had come out to graze. The common name for them is *carp*. It was a local fisherman who dubbed them "Wild Horses of the Backwater." "They come out in the backwater to graze in the weed patches and cornfields," he explained. They feed in droves, and when they

stampede, they're crazier than any wild horse that ever galloped."

His explanation is good, and he's especially right about the stampeding. Most folks think of a carp as a lazy sort of fish who likes to loaf around near the bottom of a stream or lake. And that description pretty well fits him most of the time. In fact, he spends so much time near the bottom that he grooves paths in the sand or mud. Any water hole infested with carp will have many such paths criss-crossing its bottom. Catfish also make paths on the bottom near their dens, but their paths are broad and smooth in contrast to the narrow, more deeply-grooved ones of the carp. Usually, carp can be found resting bellywise in one of their paths or gliding lazily along like human beings out for an aimless stroll.

But when it's feeding time, they come to life with more vigor than any fish I have ever met. They somersault like acrobats, wallow like hogs, and fight like a pack of hungry wolves. But it's when the river overflows that they become the wild horses of the backwater. They surge in droves through weed patches, corn fields, and the woods.

That's when we come into the pic-

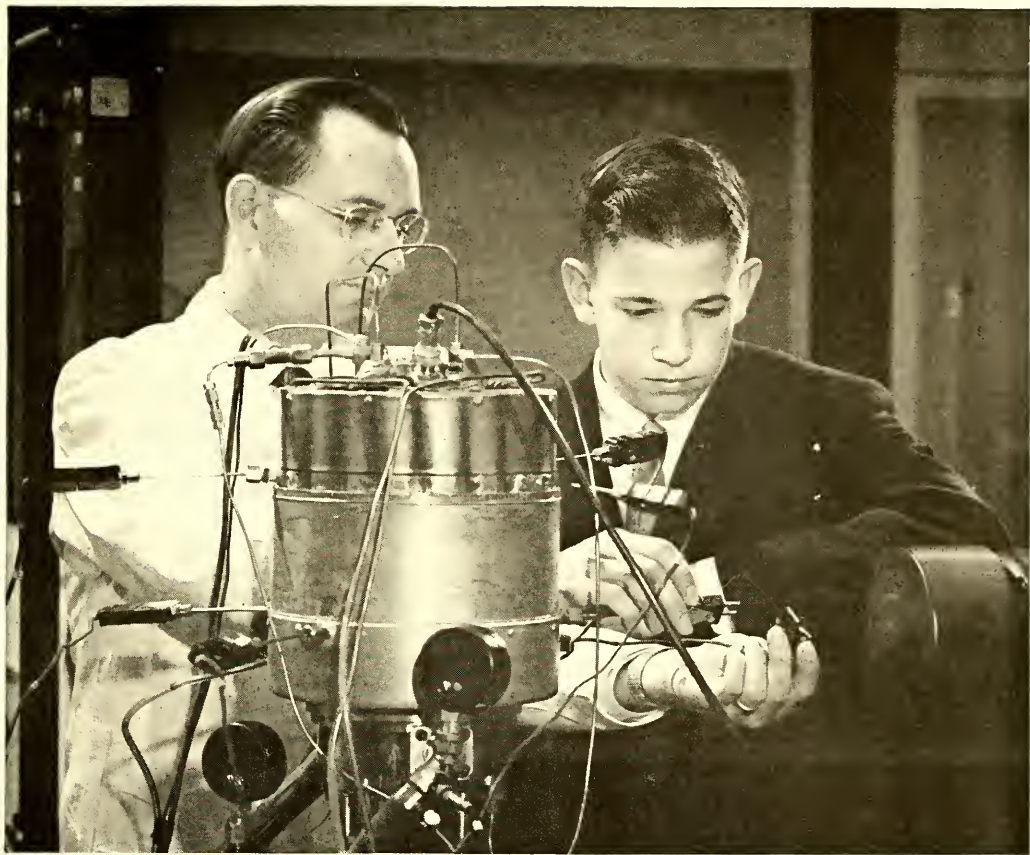
ture and create some of the craziest stampedes you ever saw. It's excellent sport and it helps to rid our waters of one of the worst enemies of good fish. Personally, I am a fish eater, but only extreme hunger would cause me to tackle the bone-filled flesh of a carp.

And good fish won't live among them if there's any other place to go. In the first place carp gobble up the food supply and make a habit of raiding the nests of other fish and feasting on their eggs. Add to that the fact that carp are evil-tempered and belligerent and will not tolerate the presence of other fish. I doubt if any fresh-water fish of like size can defeat a carp in battle. His strength lies in his tail. A 10-pound carp is capable of knocking the breath out of a man with a single slap of his tail.

So there's more than a thrill to stampeding the wild horses of the backwater. Added to the thrill is the satisfying knowledge that we are battling for better fishing in our small river.

But I'm sure the thrill was uppermost in our minds on that drizzly, May day as we watched the carp swarm into the weed patch. When they had

(Continued on Page 42)



John Bryant learns about an unusual engine at GM's Tech Center

heat from the sun will make it run

Twist a dial, flick a switch, adjust a few mirrors and off you go—powered by heat from the sun. Incredible? Maybe not. Scientists around the world are searching for ways to harness heat energy from the sun.

The Stirling Engine, or an adaptation of it, may very well be the power plant for the job. GM engineers have already proposed it as a satellite power plant, because all it needs to keep going is heat.

The Stirling is an unusual engine that's both ahead of its time and way behind.

It was built and patented in 1816, but was never completely successful.

GM began a study of the Stirling Engine about 14 years ago. A recently unveiled model promises many industrial and military uses.

How does it work? Energy from almost any fuel is used to heat the working gas inside a chamber. The synchronized motion of two pistons in this chamber converts the heat to driving power. As long as there's heat, there's power, since the gas is sealed in the

engine and used over and over again.

Is the Stirling Engine the power plant of the future? Who knows? The important thing is to keep testing it and improving it. This is GM's responsibility; this is GM's challenge.

General Motors makes things better

Chevrolet • Pontiac • Oldsmobile • Buick
Cadillac • *All with Body by Fisher*
Frigidaire • GMC Truck & Coach
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John Bryant, senior at Redford High, Detroit, visited the Research Laboratories at GM's Tech Center to see the remarkable Stirling Engine. An amateur researcher himself, John won honorable mention for his study of ozone as a bleaching agent at the Detroit Science Fair.

WILD HORSES

(Continued from Page 40)

settled down to feeding, we began a careful stalk to get between them and the river. Great care was necessary for there are few things more alert to danger than feeding carp.

As we detoured and waded into the overflow water near the river, I took a careful look at our crowd. It was composed of men in every decade of living, ranging from the teenage group to the threescore and ten mark. Most of them were veteran fishermen. Some were rod and reelers. Others leaned to the pole and line method. A third group was composed of reckless fellows who went around poking their heads and hands into catfish dens. But this corraling of the wild horse of the backwater was different—different from any other kind of fishing on earth.

The water was about four feet deep where it spilled out of the river. We formed a straight line parallel to the stream, spacing ourselves about 10 feet apart. Then we began a slow, silent march toward the feeding carp. They were about 200 yards away, and we didn't want them to stampede until we had them hemmed in as small a space as possible. Every man understood exactly what he had to do. When the stampede began, it would be straight in our direction as the carp sought the safety of the deep water in the river. It would strictly be man against fish with no weapons used except those endowed by nature. To hold one, a man had either to put his arms around him and squeeze him tightly or press him against the bottom. To catch one in the gills would be a good way to lose him, for the gills of a carp will scarcely support his weight.

As we moved away from the river, the water shallowed. As we neared the weed patch, its depths dropped off to little more than two feet. That was good, for no carp of any size could rush through water of that depth without creating a ripple on the surface. We could mark his path as surely as if we could see him.

We paused briefly at the edge of the weeds. The carp were still unaware of our presence. We could see the trembling of the weeds as they sliced back and forth through the water. Since they were feeding in an area of scarcely more than a quarter of an acre, we began a careful encircling movement. This was arranged by hand signals, for nothing will frighten a carp more quickly than the vibrations of the human voice.

When the encircling movement was completed, we stood still and gave the ripples we had created time to subside.

I noted that the nearest carp to me was about 20 steps away. When everything was still, I clapped my hands sharply and shouted, "Get out of here, Big Boys."

The movements among the weeds ceased abruptly. It was as if the carp had suddenly been frozen. It was the calm before the storm. "Get ready, Fellows," I said. "They're about to make a run for it."

The words were scarcely spoken when the stampede began. There was a sudden churning of water in the feeding area and rapid streaks moved toward us. I selected one headed straight for my knees. When he was near, I made a flying tackle. But my judgment was poor. I had intended to land on top of him; instead, I landed in front of him. His headlong rush smacked me squarely on top of the head. It was like someone had landed an overhanded blow with a hard fist. I groped desperately for my wild horse. He went quickly into reverse, then shifted to high and butted my stomach as I squatted in the water. I got my arms around him, but with a slap of his tail he broke my hold and tried a quick detour around me. I straddled him and pushed him to the bottom. He struggled and beat the water with his tail until I was uncertain which of us would be the first to surrender. Finally, though, his struggles ceased and he lay still on the bottom with me sitting on top of him.

Only then did I have the opportunity to take stock of the situation around me. It seemed that it had taken me a long time to bridle my horse, but there were others who were having a much worse time. Only in two or three spots had the violent action ceased. To my left, two men were struggling with the same fish. There was a triumphant shout behind me. I turned and saw that one

fellow had chased his fish halfway to the river and had him cornered against a sweet gum tree. My neighbor to the right had been lucky. As he squatted in the water, his fish had tried to jump over him, but had only managed to land against his chest. He had simply thrown his arms around him and held him there. It was a ludicrous sight. The fish was half in the water and half out. His head was up near my neighbor's face, and his suckerish mouth was moving as if asking for a kiss.

The action gradually subsided. Every man had seen plenty of it. Some stood empty handed, looking sheepishly toward the river, a sure sign that their fish had eluded them and reached the safety of the deep water. The others were either squatting, sitting, or lying in the water, still tensely expecting the thing they held to make a break for freedom. A quick count showed that we were presently holding 10 of the wild horses. The only one visible was the one my neighbor was holding against his chest.

There remained the problem of getting them ashore. I figured that the one I was sitting on would weigh about 20 pounds. It would take careful maneuvering to land him. One careless move and he would be gone. The first thing to consider was his powerful tail. One of the empty-handed fellows came to my aid. I locked my arms tightly around the fish's middle and squeezed him against my chest. My friend grabbed his tail with both hands. Slowly we headed for the shore and finally deposited him a safe distance back from the water. The thumping of his tail against the ground was like the slapping of a board.

Despite best precautions, two of the 10 beat and thrashed their way to freedom. We chased them like a pack of hounds, but they had had enough of us. Our best efforts failed to stop their wild rush to the river. That left us with eight whose weight probably totaled near 200 pounds.

Those which had eluded us would be too smart to come back into the weed patch that day, so we moved downstream until we found another place where the wild horses of the backwater were feeding. We corralled only five from that stampede, and I was the fellow who let a fish butt his feet out from under him and escape.

Before that rainy, May day had ended, we had raided six feeding places and corralled 25 of the scaly stampedeers. We quit as twilight settled over the bottomland and fog came down like smoke over the swollen river. As we headed for home, we were fully aware that we had come in possession of a day which would always be good to remember. ♦♦♦

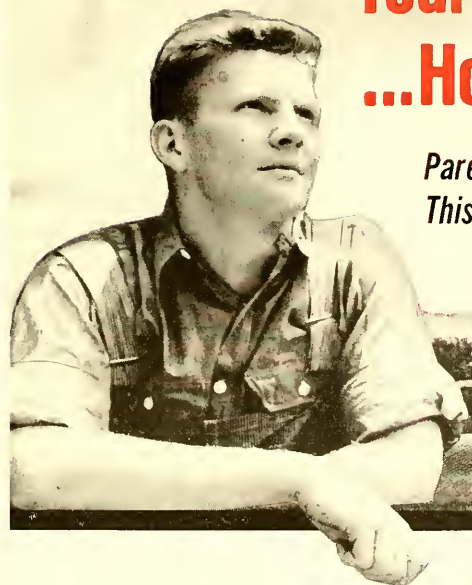
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Everything from mice, to striped "woods kitty," to bears count for points in this chapter's pest control contest. Jim Grindle (right) bagged two bears.

A Hunting They Did Go!

EVERY FFA chapter needs a good community service program. You also need some recreation from time to time. This is where a two-pronged activity comes in for the Woodlake-Cali-fornia, Chapter.

Each year its members conduct a pest control contest. They seek to eradicate animals that cause trouble for farmers and ranchers. Guns and traps are the tools, and everything from mice to bears, the quarry.

This past year, for instance, Future Farmer Jim Grindle bagged two bears to win the contest and help pile up the most points in team competition. "We are mainly interested in the eradication of rats, mice, gophers, and ground squirrels," points out Mr. James L. Taylor, FFA advisor. "However, bears do occasionally become a nuisance in the foothills, and livestockmen and home-owners are forced to eradicate a few."



Like Edgerton Future Farmers, this farmerette thinks milk is nutritious.

THE DAIRY farmer's cup runneth over . . . with 1961 milk production at approximately 125 billion pounds. One way farmers can help solve this surplus problem is to help themselves, suggest two members of the Edgerton, Wisconsin, FFA Chapter.

Bill Eastman and Ted Trulson are co-chairmen of a chapter committee for

WHY NOT A MILK BREAK?

promoting milk consumption. They believe other FFA chapters may want to borrow the idea they are using. Several years ago the committee approached the school administration with the idea of a "milk break" in the middle of the morning. "Why not give young people a refreshing 'pickup' with a glass of nutritious milk?" was the idea that was promoted.

Next year, the principal allowed a six-minute period between second and third periods instead of the customary three-minute period. Two mechanical milk dispensers were provided. Things worked well—for five years.

Several months ago, members of the FFA chapter decided to check for the need of any improvements. They discovered that, because of enrollment increases, many students were not getting

"This was the situation for Jim. But let him tell the story of his big hunt. "One night after I came home from school, I heard the dogs making an awful commotion up on the hill back of the house. Well, I knew there had been bears around because of the tracks on the road every night.

"I grabbed my 30-30 and ran up to see what they had. Two bears were treed near the corral . . . a big, old, mother bear and a half-grown cub. There I saw my chance to bag points for the pest control contest."

And bag points he did! Adds Jim: "We consider the bear one of our most dangerous and most destructive pests in the Three Rivers area. Because of their great strength and size, they can down a large cow if they feel like it. They had been killing sheep and other animals in our area."

The bears come down into the foothills because of shortages of food in the high country. Several were killed in addition to Jim's during the past year.

Mostly, however, Woodlake FFA members earn points from bagging rodents. A mouse, for example, brings one point. So does a rat.

Losers pay 50 cents to finance a Christmas party for the winners. But not only do members of the losing team pay . . . so do all who bring in less than 50 points. Team captains collect point counters before school on Monday, Wednesday, and Friday mornings. Scores are posted on the board in the ag classroom.

Maybe you don't have a bear to bag, but your chapter may like to try the idea of a pest control contest. Some chapters stress rodent control alone.

milk, due to limited facilities. They studied the program again, and again went to the principal.

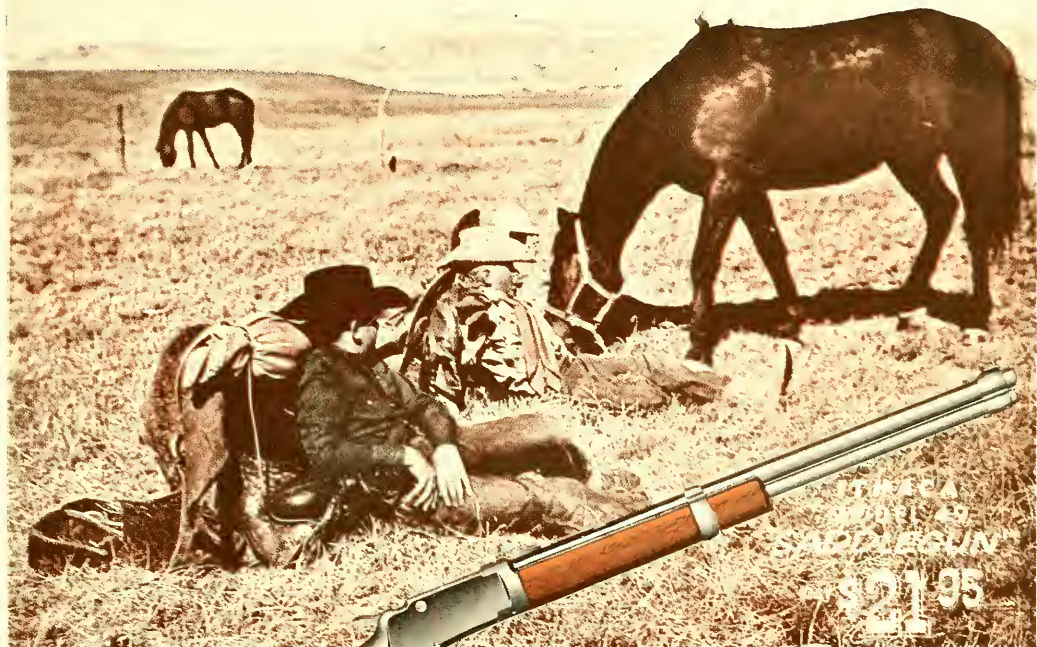
Now, there is an additional milk station—manned by FFA members who can dispense milk faster than the mechanical devices. They can make change faster, too. Result: consumption doubled. The school paper even gave the FFA chapter a fine editorial for the service it has provided fellow students.



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Agriculture, the FFA, and YOU

By Vern Freeh

FOR A few moments, let's reflect on three things—agriculture, the FFA, and you. That's a lot of ground, but we are living in an age when you can travel 18,000 miles an hour.

No other program offers young people more opportunities to grow . . . to actively practice our free enterprise system, and to develop potential to the utmost degree . . . than the FFA.

You can be proud and thankful to be a member. The training you receive in FFA and vo-ag will stand you in good stead no matter what you do in the future.

The FFA has attained its high position because those who preceded you believed in its aims and purposes. They were willing to exert the extra effort which gave life to those objectives. It will continue to progress so long as each FFA member recognizes the value of agriculture, and accepts his responsibility for making it better.

A word of caution, however. As you learn and grow, always remember that, as great as these programs are, they alone cannot adequately prepare you for the dynamic and complex world in which you will live. Nor were they developed to do so. A good understanding of science, mathematics, English, and economics is just as important.

The traits which are required for success in agriculture are the same as those in other endeavors. There is no double standard. To gain the most from life, you must always keep your learning channels open and develop your potential to its fullest. Continue your education as far as possible. The

plans you make now—and the way in which you prepare yourself—will have a tremendous impact on you 10 or 15 years from now.

You are reaching manhood when some find it easy to be pessimistic about the future . . . about the future of agriculture . . . our nation . . . the world. I hope you are not wringing your hands or wallowing in pessimism. I firmly believe you stand on the threshold of a most exciting age. Oh, there will be challenges. There will be disappointments. But there will also be success—success born in trouble and nurtured by your ability to overcome it. This is as it's always been.

Agriculture offers tremendous opportunities in the future. Here is an industry which has made more progress in the past 50 years than any other comparable industry. No other nation even approaches us in this area . . . and it's only the beginning.

Tomorrow, in your role as a farmer, agricultural scientist, agricultural businessman, agricultural educator, agricultural communicator, conservationist, or what have you, you will help direct and channel agriculture into new areas and to new heights. The opportunities are great. We can't even accurately conceive what the image of agriculture might be in the future. One thing we can be sure of—it can be as great as we wish to make it.

(From a Michigan FFA Convention speech. Mr. Freeh is coordinator of student programs at Michigan State, director of the national FFA talent show, and former FFA member and advisor.)



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who is shown above is now an Airman 3C. He is with a Fighter Wing stationed at Myrtle Beach Air Force Base, S. C. As aptitude tests had predicted, he is doing well in his job as an Organizational Supply Specialist.



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Launcher puts tin cans in air for you to shoot down. (All Sports, Mansfield, O.)



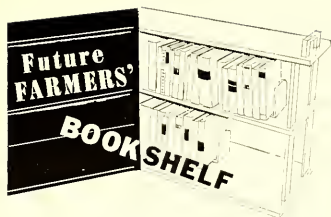
New milker system saves dairyman 25 percent in attached time. (De Laval)



"Water Minder" cuts water off at time selected. (Taylor Co., Wayne, Penn.)



"Look Ma, no hands," says nifty demonstrator of the "Tina" scooter. No gears, no clutch. (Triumph Corp.)

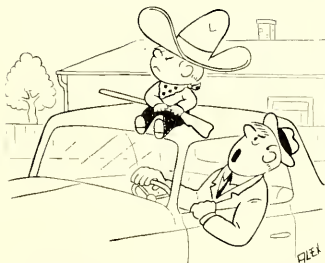


THESE new books are reviewed as a reader service. If your local bookstore doesn't have them, write directly to the publisher and mention *The National FUTURE FARMER*.

Ideas for Farm Mechanics Projects and Activities (The Interstate Printers and Publishers, Inc., Danville, Illinois, \$4.50)—Ideas for dozens of shop projects are given in this well-illustrated book. Some provide you all you need to go ahead; others are not that complete, but tell where to get the detailed plans. Fallout shelters, safety flag for tractors, farrowing stall, dairy loafing barn, loading chute, cage laying house, lawn chair—these and many other projects are included.

Judging Livestock, Dairy Cattle, Poultry, and Crops (Prentice-Hall, Inc., Englewood Cliffs, New York, \$5.04)—How is your judging ability? This text written by a vo-ag teacher and a former vo-ag teacher is an excellent source of information. Pictures illustrate the judging of livestock, poultry, small grains, potatoes, corn, and other crops. The same topics also are described in a clear, concise manner.

Western Riding Games and Contests (The Texas Horseman, Route 1, Box 225, Cypress, Texas, \$3.00)—The editor of a horseman's magazine has assembled here a collection of materials that you can use as a guide for staging and competing in the country's favorite horseback contests. Calf roping, for example, is treated with a "how-to-do-it" chapter, action pictures, and an illustration on how to rope off an arena for a contest.



"Now listen! For just a little trip to the bank I don't need anybody riding shotgun!"

SADDLE UP WITH SLIM

Lee westerner

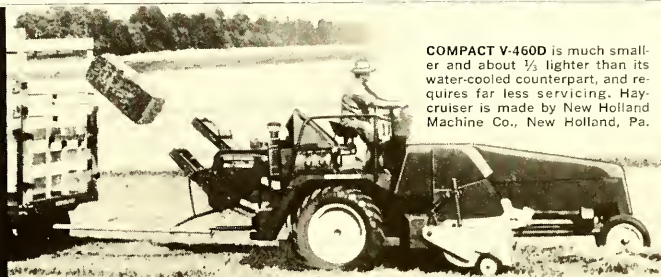
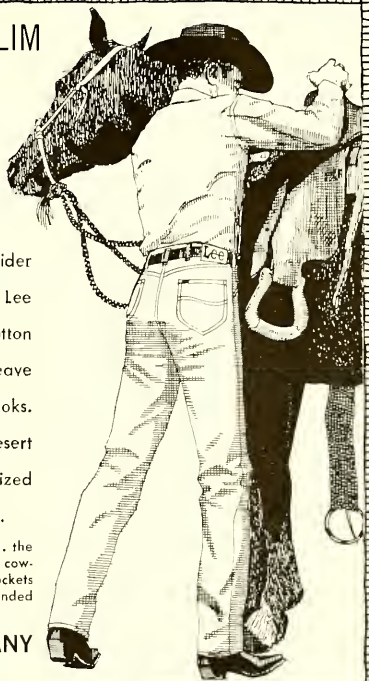
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Sportrait

By Stan Allen

WHO WAS BASEBALL's best pitcher last year? Whitey Ford, New York Yankees, won 25 games and Warren Spahn, Milwaukee Braves, won 21 games, both good records. Yet Dick Donovan, crafty righthander of the Washington Senators last year, led the earned run average department with a 2.40 mark and won only 10 of his 20 starts. These are the fortunes of the baseball wars and the story of much of Dick's early career.

Dick Donovan was signed by the old Boston Braves in 1945 when he was only 17 years old. He had played sandlot and high school ball in his home town of Quincy, Massachusetts. He was an infielder until his senior year when he was called on to pitch a high school game due to a shortage of pitchers. He won his first start as a pitcher with a two hitter and from then on pitching was his ambition.

Dick spent the '46 season in the U. S. Navy and played for the Naval Station at Bainbridge, Maryland. He reported to the Class C Ft. Lauderdale, Florida, team after discharge in 1947 and posted a 7 win, 15 loss record. His performance earned him a ticket to Class B ball with Evansville in the Three I League in 1948 where he won 12 against 9 losses and had a fine 3.08 earned run average. He had also posted 140 strikeouts that year and many thought Dick was on his way up.

But fortune was not to smile on Dick yet. He traveled north with the club after spring training only to be sent back to the minors at the team cut off date. He seldom appeared in more than 15 games a season in those years and for ten years his career was like an elevator. It was the same old story in 1953 when the Braves moved to Milwaukee. After a few days, Dick was given the news to report to Toledo. He balked and wouldn't report and asked the team to trade him. His contract was finally purchased by the Atlanta Crackers, a farm team of the Detroit Tigers.

This was to be a big break for Dick as Atlanta's pitching coach, Whit Wyatt, was to give Dick the help he needed. Dick had come up with a very good fast ball, a good change up, and a curve but he didn't have that big pitch to use when you get behind on a batter. Wyatt taught Dick how to pitch the slider which rounded out his game. A slider is thrown just like a fast ball, spins like a fast ball, and yet it falls away like a curve. For Dick, a righthander, it would curve away from the righthanded batter and since his fast



Dick Donovan, earned run leader.

ball broke in, the batter was kept off balance.

He posted 11 wins against 8 losses for Atlanta in '53 and came back with 18 wins and 8 losses in '54. He finished that season with a fine 2.69 ERA and again posted 140 strikeouts. He attracted the attention of Frank Lane of the Chicago White Sox who purchased his contract that season.

The White Sox gave Dick the chance to pitch often and regularly which was what he needed. He made a very impressive start with the Sox in '55 with 15 wins and 9 losses and an ERA of 3.32. He was also named to the American League All Star Team that first full season. One of Chicago's mainstays for the next six years, Dick posted his best record for them in 1957. He won 16, lost 6, and had a fine 2.77 ERA. He helped the White Sox win the American League pennant in '59 even though he was injured. But he had a poor season in '60, pitching only 79 innings, and was listed in the player pool to stock two new teams.

Donovan was one of the first choices of the new Washington Senators and the first player to show up at their spring training camp last year. He was Washington's best pitcher, much better than his won-lost record shows. He lost his first five games by one run margins even though he hurled two four hit games in those.

Dick is a big, strong fellow, standing 6'3" and weighs about 205 pounds. At 34, he is still a good pitcher. With the Cleveland Indians now, he has won his first four starts this season and allowed only 7 runs. The difference is that the Indians have given him 23 runs. If a fast start means anything, he should join the 20 game winner club this season—no pitcher deserves it more.



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118—Adventure in Leather—What is the oldest handiwork known to man? You can read all about it in this colorfully illustrated booklet that tells the history of leather. A caveman bound the hide of an animal around his sore and bruised foot. Ever since, leather has played a key role in mankind's progress. (Tandy Leather Co.)

119—Farm Facts at a Glance—This is a new and practical farm reference handbook. It was especially prepared to help solve problems which arise almost daily in modern farming. One chapter presents a unique price guide designed to assist farmers plan higher crop and livestock returns. (Smith-Douglass Co.)

120—Tractor Tips for Better Engine Performance—Your tractor sluggish lately? These service tips can save you money, claim the authors of this handy booklet. You will find information on the electrical system, fuel system, distributor, and spark plugs. (Champion Spark Plug Co.)

121—The Story of Goodyear Farms—Here is a timely publication that tells about one of the places visited recently by the national FFA officers. History has been made at this Litchfield, Arizona, location which once was valueless. You can see how arid land has been transformed into good farm operations. (Goodyear Co.)

122—The Good Earth . . . Can Do You Dirt!—If you want to know how to get the best results growing flowers, fruits or vegetables, you can use this very readable pamphlet. It tells pH preference of different plants and explains the importance of testing for major soil elements. (Sudbury Laboratory)

(Sorry the supply of last issue's tomato booklet was exhausted.—Ed.)

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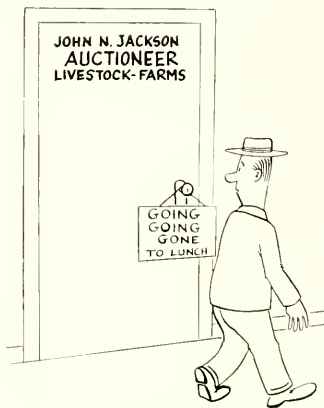
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One girl to another: "I'll never understand men if I live to be 20."

Myra Dixon
Vernon, Florida

Did you hear about the man who got a new boomerang and went crazy trying to throw the old one away?

Bobby Sullivan
Connersville, Indiana

New Groom: "Well, Sally and I had our first real quarrel yesterday."

Neighbor: "Well, how did it turn out?"

New Groom: "She got down on her hands and knees."

Neighbor: "Did she actually apologize?"

New Groom: "Heck no, she was calling me a coward because I wouldn't come from under the bed."

Sharon Gray
Dallas, Georgia

New definition: Cyclone—a wind doing the twist.

Tommy Christensen, Jr.
Shelley, Idaho

Be sure you use the right word, not one that is almost right. For instance, call her:

A kitten—but not a cat.

A mouse—but not a rat.

A chick—but not a hen.

And a vision—but not a sight.

Dick Daeger
Paulding, Ohio

The prizefighter staggered back to his corner after taking a beating for seven rounds. His manager whispered in his ear, "Don't give up now, boy. You've got a no-hitter going."

Ralph Schuler
Kempton, Pennsylvania

The young wife on her first fishing trip was working busily over her line. Finally her husband asked her what she was doing.

"I'm changing corks, dear," she answered sweetly. "This one keeps sinking."

Keith Canfield
Konawa, Oklahoma

Visitor: "And what's your name, my good man?"

Prisoner: "9068."

Visitor: "But that's not your real name."

Prisoner: "No, it's just my pen name."

Dean Rudloff
Cologne, Minnesota

The first prize sculpture in a modern art show went to a curiously shaped piece bearing this sign: The sculptress made this entirely with her tongue.

Someone questioned the exhibitor, "Who is this talented sculptress?"

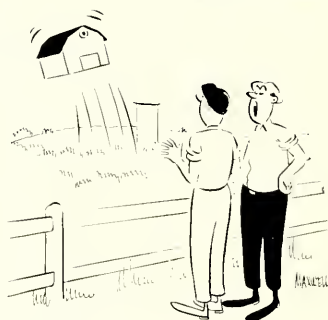
He replied, "My cow. That's her salt block."

Michael Fairley
Leesburg, Ohio

A wise guy in a flashy convertible stopped in front of a country store. "Hey, Rube," he called to one of the men sitting in front, "how long has this town been dead?"

"Not long, Sonny," the man replied, "you're the first buzzard we've seen."

Henry Sherrer, Jr.
Bay City, Texas



"It's probably nothing serious . . . just your oversize mow drying fan."

An antique dealer, passing through a small village, came upon an old man using an ax. "That's a mighty old ax you have there," he said.

"Yup," said the farmer, "it belonged to Sir Walter Raleigh."

"Not really!" said the dealer. "It sure has stood up well."

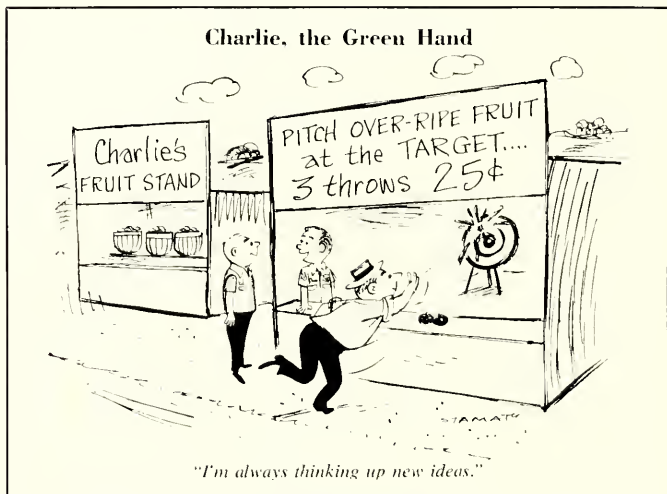
"Oh, I don't know," said the farmer. "It's had three new handles and two new heads."

Tedy Detmer
Broken Arrow, Oklahoma

"Does the new uniform fit you?"

Recruit: "The jacket isn't bad, sir, but the trousers are loose around the armpits."

Joy McDonald
Lena, Mississippi



"I'm always thinking up new ideas."

The National FUTURE FARMER will pay \$1 for each joke published on this page. Jokes must 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.

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The big new 5-plow, 6-cylinder D-19 diesel has the same kind of **TURBO-CHARGING** used in biggest Allis-Chalmers crawlers. It produces power equal to ordinary engines 20% bigger.

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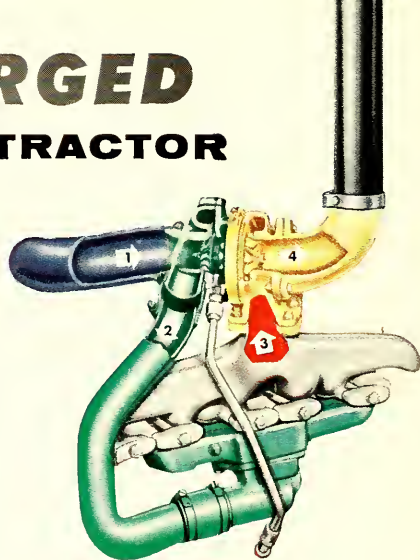
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- 2. Compressed air to intake manifold
- 3. Exhaust drives Turbo-charger
- 4. Quiet exhaust, OUT

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