



The National

Future Farmer

Owned and Published by the Future Farmers of America



February-March, 1969

A man in a blue shirt is shown from the side, leaning over and pouring a red liquid from a large red can labeled 'AMIBEN' into a yellow sprayer tank. The can has 'AMCHEM PRODUCTS, INC.' and 'PRE-EMERGENCE WEEDKILLER' printed on it. In the background, there are more red cans, one of which also has 'AMIBEN' on it. The scene is set outdoors, possibly in a farm or industrial setting.

amChem

First Name in Herbicide Research.

AMCHEM PRODUCTS, INC.

Ambler, Pennsylvania

What it takes to be No.1

You've got to do a better job for more farmers than anybody else. You can't leave big weeds like smartweed, ragweed, and velvet leaf uncontrolled. And they grow in soybean fields when you don't use a broad-spectrum weedkiller. This year choose Amiben. It gives complete weed and grass control. That's why Amiben is No.1.

To get things done **Put**
your farm
on Firestones.

Firestone has the right tire for every wheel that rolls on your farm. They're farm-tested to work better for you. Farm tough for extra seasons of wear. With aggressive traction to get the work done... fast.

And no wonder. Firestone put the farm on rubber. And still leads with developments like 23" tractor tires. Plus on-the-job farm service to cut your down time, increase your productivity. Clearly, you get more work done on Firestones. See your nearby Firestone Dealer or Store.



Firestone truck tires. Safe. Dependable. For every need. Every truck. Every season.



Firestone passenger car tires. First with the new-car makers. Make them first choice on your cars, too.



Firestone 23" tractor tires. A full line of 23" tires for every need. Farm service mounts tires right on the job, minimizes loss of time.

Firestone

The high-performance tire

In This Issue

FEATURES



10 Meet Your President

MEET AND VISIT WITH YOUR NATIONAL FFA PRESIDENT JEFF HANLON. THIS ARTICLE GIVES YOU AN OPPORTUNITY TO SHARE SOME OF HIS THOUGHTS ABOUT AGRICULTURE AND TAKES YOU ON A VISIT TO BUCK MOUNTAIN RANCH IN OREGON.



22 Lysine Corn

HIGH LYSINE CORN HAS TAKEN MANY YEARS OF RESEARCH TO DEVELOP AND STILL REQUIRES MORE. THIS FEATURE TELLS HOW FAR THE MAJOR SEED COMPANIES HAVE PROGRESSED, DISCUSSES RESEARCH FINDINGS, AND EXPLAINS THE ADVANTAGES AND DISADVANTAGES OF RAISING LYSINE CORN.



35 Oral Reasons

ORAL REASONS HAVE BEEN ADDED TO THE NATIONAL JUDGING CONTESTS. THIS ARTICLE TELLS HOW ORAL REASONS CAN BENEFIT THE JUDGING CONTESTANT AND GIVES HELPFUL SUGGESTIONS ON HOW TO PRESENT ORAL REASONS.

- 12 Hall of Fame Honorees
- 16 National FFA Theme
- 17 Trail Talk
- 20 Texas High School Rodeo
- 21 Breaking The Entry Barrier
- 26 Planning A Farm Shop

- 30 Mechanics-Inborn Fondness
- 31 Make Welds
- 38 FFA In Action
- 40 Call A Predator
- 44 The Chapter Scoop
- 46 Guides To Safe Driving

DEPARTMENTS

- Looking Ahead 6
- From The Mailbag 8
- Word With The Editor 14
- Sportrait 28
- Free For You 42
- Something New 43
- Photo Roundup 48
- Joke Page 50

Our Cover

Sparks fly as the masked welder demonstrates his ability. Danny Thompson, Elfrida, Arizona, FFA is reportedly the best arc welder in his chapter. He recently completed construction of a horse trailer as part of his work in farm mechanics.

Several articles in this issue, "Planning Your Farm Shop," "Make Welds In Awkward Positions," and "Mechanics an Inborn Fondness," all deal with the popular farm mechanics topic.

PHOTO BY GUY PRICE

THE NATIONAL FUTURE FARMER is mailed every two months on the following dates:
January 20.....**FEBRUARY-MARCH** Issue
March 20.....**APRIL-MAY** Issue
May 20.....**JUNE-JULY** Issue
July 20.....**AUGUST-SEPTEMBER** Issue
September 20..**OCTOBER-NOVEMBER** Issue
November 20..**DECEMBER-JANUARY** Issue

ADDRESS ALL CORRESPONDENCE TO: *The National FUTURE FARMER*, P.O. Box 15130, Alexandria, Virginia 22309. Offices are located in the National FFA Center on U.S. Route One, eight miles south of Alexandria.

The National FUTURE FARMER is published bimonthly by the Future Farmers of America at Alexandria, Virginia 22309. Second class postage paid at Alexandria, Virginia and at additional mailing offices. Copyright

1969 by the Future Farmers of America. This issue published in national and regional editions.

Single subscription is 75¢ per year in U.S. and possessions. Foreign subscription, \$1.00 per year. Single copies, 20¢ in U.S.

CHANGE OF ADDRESS: Send both old and new addresses to Circulation Dept., *The National FUTURE FARMER*, P.O. Box 15130, Alexandria, Va. 22309.

MAGAZINE STAFF

EDITOR, Wilson W. Carnes

BUSINESS MANAGER, V. Stanley Allen

EDITORIAL

John M. Pitzer and Ronald A. Miller, Associate Editors.

Zelma McShane and Kathy Kimberlin, Editorial Assistants.

Circulation Assistants: Norma Salvatore, Frances Hall, Adriana Stagg.

Promotion Assistant: Jim Hayhurst

ADVERTISING

Lennie Gamage, Advertising Manager

Regional Ad Monogers:

Glenn D. Luedke, Alexandria; Duane Leach, Chicago.

Advertising Assistant: Eileen Cross

NATIONAL ORGANIZATION OF FUTURE FARMERS OF AMERICA

BOARD OF DIRECTORS

Chairman, H. N. Hunsicker

Members: G. R. Cochran, J. C. Fink, V. B. Hairr, J. W. Lacey, B. F. Rawls, J. A. Taft, J. W. Warren, D. E. Wilson.

DIRECTOR OF INFORMATION
John Farrar

MANAGER, FUTURE FARMERS
SUPPLY SERVICE

Edward J. Hawkins

PUBLIC RELATIONS MANAGER

John C. Foltz

FFA PROGRAM SPECIALIST

Coleman Harris

NATIONAL OFFICERS

President

Jeff Hanlon, Oregon

Vice Presidents

Lowell Catlett, Texas

Tom Johnson, Illinois

Joe Martinez, California

Glenn Weber, Pennsylvania

Secretary

Jerry Batts, Alabama

National Advisor

H. N. Hunsicker

FFA Executive Secretary

William Paul Gray

National Treasurer

J. M. Campbell



Convincer

Tilling the soil . . . mowing the hay . . . pulling the heaviest loads. That's the David Brown tractor. We call it the Convincer . . . Rugged power . . . streamlined beauty . . . and more tractor than you'll get from any other make for the money. If David Brown can't convince you that it's the best tractor buy today . . . then you're not the convincing type. Take a look at one of the Convincers soon. Many standard features are options on other makes. Like Traction Control—a weight transfer system that distributes the load and pulling power evenly to eliminate wheel slippage. Like the Selectamatic Hydraulic System—a simplified and unique hydraulic system. There's more . . . much more. But the Convincers are more than just mechanical masterpieces. They're low cost tractors too. Low initial cost. Low maintenance cost. Low operating cost. Whatever size you need there's David Brown Convincer for you—770, 780, 880, 990, 1200 diesel and now two gasoline models to choose from, the 3800 and the 4600. Tell your nearest David Brown Dealer you want to test drive a true Convincer.

For further information contact the David Brown dealer nearest you or write: National Equipment Distributors Association (NEDA), P. O. Box 5025, Dept. NFF169, Richmond, Virginia 23220.



DAVID  **BROWN**

17 David Brown Ports Depots Serve You Throughout the United States.
David Brown Tractors are distributed nationally through the members of the National Equipment Distributors Association.

Looking Ahead

Livestock

CATTLE LICE—Dairy and beef producers should inspect their livestock for louse infestation. Often cattle lice are not detected until populations have already built up. According to William F. Lyon, Ohio State entomologist, lice reduce production of milk or beef, as well as weakening livestock and making them more susceptible to disease in spite of adequate nutrition. Several insecticides are effective in controlling cattle lice. Some, however, should not be used on dairy animals due to possible residues which may accumulate in the milk.

NEW FEED ADDITIVE—Beef cattle researchers at American Cyanamid Company have developed a new feed additive, Aureo S 700, that minimizes the effects of stress in cattle. According to the company, cattle on this new product for the first 28 days in the feedlot gained 23 percent more than the controls. Feed efficiency was improved 19 percent, and incidence of shipping fever was reduced 54 percent. The 12 additional pounds that feeders on Aureo S 700 gained over control animals amount to a "free" 600-pound feeder for every 50 on feed.

PIPELINE MILKING—The switch from bucket milkers to pipeline milking increased the need for hot water by three to four times. According to Lynndon A. Brooks, University of Wisconsin agricultural engineer, a 40-cow herd requires 25 to 30 gallons of hot water when buckets and can coolers are used. The minimum size water heater recommended for a 40-cow herd milked with a pipeline system is 80 gallons. It takes about 38 gallons of hot water just to clean an 88-foot line not to mention cow udders and parlor floors.

NEW IODINE SOURCE—A new iodine-containing compound, pentacalcium orthoperiodate (PCOP), was introduced by the Morton Salt Company. According to the company PCOP, a dry powder, is a stable, nutritional, and safe source of supplemental iodine for livestock and can be compounded with salt and other minerals. Analyses show PCOP, which is effective in the prevention of thyroid iodine deficiency, to be continually available on the surface of trace mineralized salt blocks and thus physically available to the animals licking them.

WEANING BEEF CALVES—Research at North Carolina State University shows early weaning can result in faster growing beef calves and an increase in feed efficiency. Besides increasing calf performance, cow-calf units per acre can be doubled by early weaning during the mid-summer period. Early weaning also pre-conditions calves in a manner that buyers of feeder calves like. Disadvantages of early weaning are critical management and increased labor.

SONORAY TESTING—Sonoray equipment is now being used to measure the meatiness and fattiness of live animals. On-the-farm testing of cattle, hogs, and sheep by the University of Missouri is helpful in selecting breeding animals. Sonoray estimates of meatiness are similar to the actual measurements of slaughtered animals. The sonoray machine produces a high frequency sound which is used to

measure backfat thickness and loin eye muscle. The size of loin eye is a highly heritable characteristic.

Crops

STERILIZED ALFALFA WEEVILS—Preliminary tests at Penn State indicate chemicals can be used to sterilize male alfalfa weevils. A low dosage of a chemosterilant called apholate can produce moderately high sterility in male weevils without killing them. When this process is fully developed, sterilized males will be released into infested fields to mate, thus making the female eggs infertile. In an overall control program, sterile male weevils may be used in conjunction with selective, conventional insecticides sprayed at proper times.

NO-TILLAGE CORN PRODUCTION—Corn production without tilling the soil can not only cut labor costs but can also increase yields, says E. S. Smith, farm machinery specialist at Virginia Tech. A recent study at the university by agricultural engineers showed a water use efficiency of 81 percent in a no-tillage system as compared to 57 percent for convention tillage. There was less rainfall runoff, less evaporation, and a more favorable root zone environment with the no-tillage system.

"SPEED-CHEK" SERVICE—Any crop grower who believes he has unsatisfactory weed control in 1969 from Treflan may call his area Elanco Product Company headquarters "collect." A company representative will contact the grower through the new "Speed Chek" program, usually within a few days. According to Elanco, the service will benefit the grower because it allows the company to recommend a possible program to correct the weed control problem. The grower will have the benefit of some weed control for the rest of the season and will not have to wait until the end of the growing season before registering a complaint.

Land

LAND USE SURVEY—The USDA reports nearly three-fifths of the land in the United States is used to produce crops and livestock, another fifth is covered by ungrazed forests, nearly 3 percent is taken up by cities and other urban areas, and 12 percent is desert, tundra, swamp, and other land of limited use. U.S. land area totals 2,266 million acres. One-fifth is classed as cropland, of which only three-fourths is used for crop production. Livestock is grazed on over two-fifths of all U.S. land.

FARMLAND VALUES—U.S. farmland values rose 70 percent in the last decade and will continue to rise in 1969. Recreational uses for land have been creating pressure on land prices. Increasing population has created demand for more living space in addition to the need for more highways to handle additional cars. Industry also continues to buy land for expansion.

This is Stir-Lec I.

And if you saw it on a highway, you'd probably think it was a standard Opel Kadett.

You'd be half right. It's got an Opel body. But it's powered by electricity. The power plant consists of 14 conventional lead-acid batteries that you could buy down at the corner. The energy

from the batteries is transferred to an electric motor which in turn drives the rear wheels. And the car can tool along at speeds of up to 55 miles an hour.

While the car's running, the batteries are constantly recharged by a small Stirling engine in the rear. It's so quiet that you can hardly tell whether it's on or off. And since the Stirling is an external combustion engine (fuel is burned in a separate chamber from the engine), the exhaust has virtually

no odor and pollution levels can be made very low.

Stir-Lec I is still only an experimental model. A project that Engineers at GM's Research Laboratories are working on today, to meet the demands of the future.

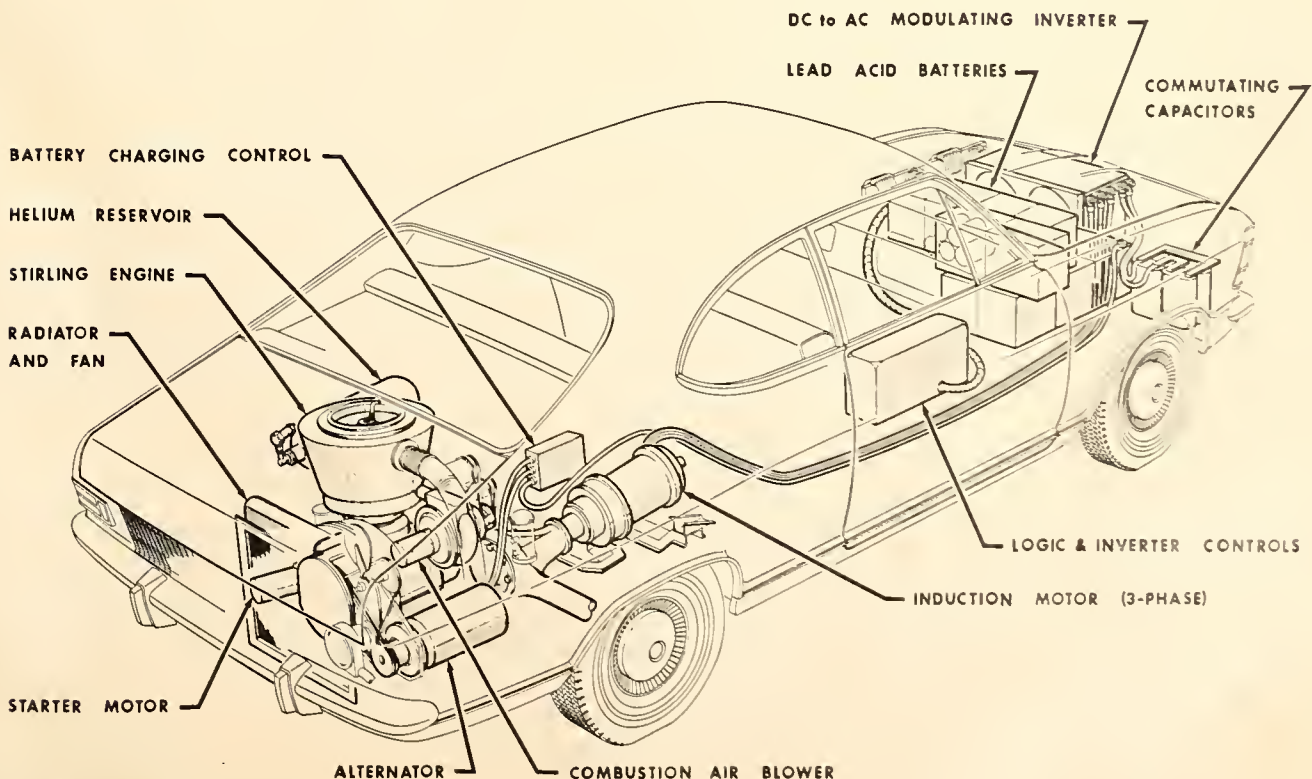


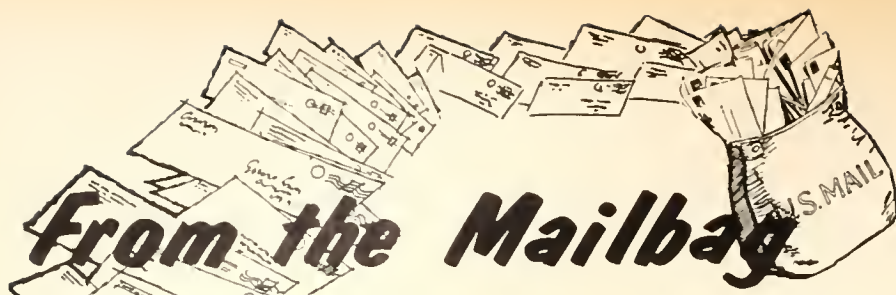
MARK OF EXCELLENCE

General Motors

Chevrolet • Pontiac • Oldsmobile • Buick • Cadillac • Opel • Fisher Body • Frigidaire • GMC Truck & Coach • Detroit Diesel • United Delco • AC Spark Plug • Allison • Electro-Motive • Earthmoving Equipment Division

An electric car that makes its own electricity.





Prague, Oklahoma

I especially enjoyed the articles on the Star Farmers in the October-November issue. As president of our local chapter, I know the problems of getting freshmen interested in our organization. I think that reading about these members encourages others to strive to achieve such awards.

This magazine always interests me so keep up the good work.

Larry Billen

Portales, New Mexico

A pair of boots was found in a brown and white 1968 Ford pickup at the National FFA Convention. If any member has lost a pair of western boots, send us a letter describing the boots and your address. The boots will be sent to you if your description is correct. Address your letter to the Portales FFA Chapter, 201 South Knoxville, Portales, New Mexico 88130.

*Harold Hahn
Chapter Reporter*

Albany, New York

Yesterday I received a copy of the December-January issue from our commissioner, Mr. James E. Allen, Jr.

You and your staff are to be commended on the excellence of this issue. The cover picture is a far cry from the traditional cover pictures used and helps to create a broader image of FFA. This cover picture is up-to-date, filled with action, and I am sure will attract the interest of teen-age readers. I am sure that it whetted my appetite to pursue the accompanying article in the Magazine.

The section of the Magazine dealing with agriopportunities is particularly good. It would be well for every ag teacher to put copies of this on file for reference and to pass along to the guidance counselor in his school. My only concern relative to this material is that it continues to create the image that the only opportunities in agriculture are for those who continue on through the post high school education. It would be desirable to point out that there are agriopportunities for high school graduates of occupational courses in agriculture. This has been true in the past and will undoubtedly continue to be true in the future.

The article on the 40th Anniversary of the FFA was exceptionally well done. The illustration and the narrative do a good job in telling the story of this important activity.

You should be encouraged to include

more articles and materials dealing with the various aspects of off-farm occupations. The areas of conservation, ornamental horticulture, agricultural mechanization, and agricultural business would be particularly appropriate.

*Harold L. Noakes
State FFA Advisor*

Washington, D. C.

We have read with appreciation the special sections of the December-January issue, particularly the sections devoted to agriopportunities. The sections are thought-provoking, and our only regret is that we were not included as the trade association of the fertilizer industry on some "viewpoints" appropriate for the promotion.

Certainly, the subject matter will come up for review again sometime soon, and we would welcome an opportunity to make a contribution commensurate with our knowledge in areas of vital interest to the fertilizer industry.

*Louis H. Wilson
Vice President, Communications
National Plant Food Institute*

North Troy, Vermont

I especially enjoyed the article called "Water Skiing." I liked the way you gave pointers and the expenses of the sport.

Richard Roberts

Philadelphia, Pennsylvania

We at the Saul School have been asked to develop a public speaking program. I for one am disillusioned with what I have seen of this aspect of vo-ag, and I ask, "What are the goals? Are there any goals?"

If you say, "The virtues of being able to stand on your feet and communicate ideas to an audience," then I ask: "Does the FFA public speaking effort really train a young man to get up before an audience and communicate?" I don't think so. I have heard some fine lads offer prize-winning presentations, and I was not impressed. In the more than twelve years that I've hosted a local TV farm show, I've had a lot of FFA guests. One of the biggest problems was their inflexible, stilted, memorized presentations that offered no chance to get to know the speakers and—worse—offered no sense of contact with the audience. In almost every instance I've been left with the vague, empty feeling of having been addressed by an ingenious computer. In accord with the prescribed rules, the speeches were memorized verbatim and hammered home with an obsession that each word had to be

precisely included—at the expense of effective delivery. Some young men, having given their mechanical rendition for the "umpteenth" time, indulge in a flowery presentation reminiscent of a 1910 political speech—minus the pungent promise of roast ox for all who listen. Often in these speeches the passionate intonations of the circuit rider slip in and further obscure the message.

No one enjoys having comfortable, well-entrenched shibboleths challenged so I can understand if some hackle feathers are up at this point. But if we care about the students we're teaching, I think the issue has to be joined. If I didn't see great potential for public speaking in the vo-ag program, I wouldn't make this effort to "rock-the-boat." The ability to communicate is one of the most important tools we can give vo-ag students. But it has to be a modern tool they can use, not old forty-inch gear that won't work twenty-inch rows.

I say memorizing a speech is self-defeating. Memorizing has been virtually outlawed in all regular public speaking classes for decades. In a world that explodes with Madison Avenue techniques devised to capture and hold our attention, we're so inundated with urgently delivered messages that for the most part we have become inured to speakers and speeches.

*William Bennett
Faculty Member*

Stanberry, Missouri

I am a sophomore in school, and I am in the second year of FFA. Do you think boys should go to college if they are going to be farmers? I have lived on a farm all my life and have chosen my career as a farmer. I have had many experiences in farming, and I think if you take vo-ag you wouldn't have to go to college.

I have had many answers, but I would like to have your answer.

Jim Hill

Yes, I would recommend that anyone go to college even though they plan to farm, but there are many examples of successful farmers who did not go to college.

If you have the money and can spare the time from your present farming operations, by all means go to college. If you do not choose to go to college, then your vocational agriculture should be a big help, and you can supplement this after you finish high school by attending Young Farmer classes, Adult Farmer classes, short courses, etc.—Ed.

Columbus, Ohio

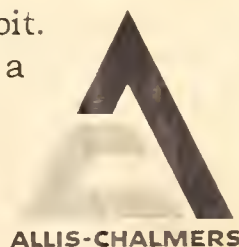
Congratulations on the very excellent December-January issue of *The National FUTURE FARMER*. The section on "AgriOPPORTUNITIES" was a masterpiece. You and your editorial staff are to be highly congratulated for this splendid presentation of career opportunities in agriculture.

*Roy M. Kottman
Dean and Director
College of Agriculture
The Ohio State University*



One of these No-Til coulters runs ahead of each planting unit.

Pioneering with ideas that pay off is an Allis-Chalmers habit. Like No-Til planting with our 600 series planter. We engineered a special fluted coulters to work a seed zone $2\frac{1}{2}$ " wide to the depth you need. Plant in soil or stubble with no other tillage; 40, 30, 20-inch rows. Save soil. Cut production cost and time.



ALLIS-CHALMERS

No-Til is an Allis-Chalmers trademark.

February-March, 1969

ALLIS-CHALMERS • THE SYSTEMS PEOPLE • MILWAUKEE, WISCONSIN



National President Jeff Hanlon

Meet Your President

As chapter secretary, chapter president, and state vice president, Jeff Hanlon of Cornelius, Oregon, took advantage of the leadership opportunities in FFA. The experience gained in these offices helped Jeff reach one of FFA's greatest opportunities—national president.

Although endowed with many leadership qualities, Jeff's talents also include management ability. He manages a 250-acre beef and timber ranch in partnership with his father, Mr. Charles J. Hanlon. Jeff traded 26 head of cattle for one-third interest in the operation

which presently is being expanded. The partners recently purchased more stock, updated their equipment, and now are constructing a new building.

The main enterprise on the ranch is 100 head of registered beef cattle which they raise as breeding stock. Jeff and his father pasture the cattle on 135 acres and produce hay from the same acreage. They also raise feed grain on 15 acres. One hundred acres are devoted to timber.

Their ranch, known as Buck Mountain Ranch, lies 32 miles northwest of Portland. As the name implies, the

ranch is atop Buck Mountain. Jeff says, "We have no neighbors close by and are fairly secluded. We enjoy the mountains and like being close to nature."

Prior to moving in 1958 to Buck Mountain Ranch, previously a strawberry farm, Jeff and his family lived in urban California. Mr. Gordon Galbraith, Oregon vocational agriculture staff member, says, "They had little, if any, farm experience and as a result Jeff's vocational agriculture training was instrumental in the family development of their farm. Jeff's interest in registered Herefords resulted in the total

The cow was the first registered animal purchased by Jeff as a Greenhand. The bull was about four and a half months old.



farm operation being devoted to this enterprise." He now belongs to several livestock associations.

A specialized outlet for dressed steer meat provides the Hanlons with a unique and profitable farming enterprise. Selling dressed meats, they received an equivalent price of 29 cents per pound of live weight. Their performance records show a herd average weaning weight of 470 pounds in 205 days, a 58 percent dressing average, and a calf crop of 92 percent. Other efficiency records include 2.1 pounds daily gain from birth to sale on registered bulls and a hay yield of two tons per acre after two grazings.

Jeff's farm records received chapter, district, and state recognition and helped him earn the Hillsboro FFA Chapter Star Farmer award. This achievement illustrates that cooperation of father and son clearly affected Jeff's farming program. Most likely he learned this skill from his father, a part-time auditor.

The young leader twice served as delegate to the National FFA Convention and attended many leadership conferences. Jeff also participated in numerous radio programs, speaking contests, livestock judging, and soil judging. His secretary book received first place in the chapter, district, and state competition.

In the community Jeff has been named Rotarian and Boy of The Month. He is also a member of the Oregon Youth Council and the Oregon 18 Year Old Vote Committee. In high school Jeff served as class senator and worked on Hillsboro FFA's community service committee.

All these activities helped prepare Jeff for the FFA's top office.

Jeff is shown here with one of the herd sires used on Buck Mountain Ranch.



Jeff enjoys being with his dogs and likes to take in the scenery on Buck Mountain.

A visit with Jeff

In what ways has living on a farm changed your life?

My family moved to Oregon in 1958. Prior to that time we lived in a southern California coastal town called Ventura. As my father terms it, "We moved to Oregon as an experiment in living."

It has been a great family challenge to move to a new area and attempt to farm with no previous knowledge of farming. We started with a small strawberry farm and since have converted it into a cattle operation.

This challenge has served to strengthen our family ties. We communicate well and have no generation gap. We have unity of purpose and, therefore, unity of interest in our family enterprise.

Living on a farm has helped me develop more responsibility and perseverance than what otherwise might have been. When living and working on the land one can learn the dignity of labor and also appreciate more the value of capitalism and the free enterprise system.

Living on Buck Mountain has also allowed me to be closer to nature. Perhaps this is one of the most important aspects of our move from urban California to rural Oregon.

How has vocational agriculture helped you?

Vocational agriculture has been important to my education and our home. Through vo-ag I learned, first, the basics of production agriculture. This knowledge helped in developing our ranch, since my parents and I were urban-oriented and unfamiliar with farming. Many things taught in vo-ag applied directly to our ranch.

Secondly, vo-ag helped me realize the

staggering size and importance of the agricultural industry. This is something all students should be exposed to, since agriculture is so crucial to the economic success of our country.

Has membership in the FFA altered your career objectives?

Upon joining the FFA I was definitely planning to go into production agriculture. Now, after being exposed to so many possible opportunities in agribusiness, my specific career is uncertain. However, my plans definitely include some phase of agriculture.

Presently I am majoring in political science at Lewis and Clark College, a small liberal arts institution in Portland. My choice of political science as a major was made simply because Lewis and Clark has no agriculture curriculum and I find study of politics fascinating. Previously, I studied agriculture at Oregon State University.

My reason for transferring to Lewis and Clark was to move closer to home. The distance factor is all-important as my father and I are expanding the ranch. My father is also employed as an auditor in Portland.

What opportunities do you foresee in serving as a national FFA officer?

Serving as a national officer offers so very many things. First, of course, is the opportunity to improve myself as an individual. Being a state or national officer is a tremendous learning experience, and I hope to take advantage of it. This year also provides me with the opportunity to truly serve the FFA. I would not have pursued membership in the FFA if it had not been for the inspiration of state and national officers. Perhaps during this year I, too, can inspire others.

The

First

Agricultural

Hall of Fame Honorees



These honorees were announced at the National FFA Convention.

AFTER A NATIONAL SURVEY, a site 12 miles west of Kansas City near the town of Bonner Springs, Kansas, was selected for the Agricultural Hall of Fame. Two fine buildings have been erected and now serve as museums of agriculture. This year more than 200,000 people are expected to visit the national center. They will see, among other historical attractions, the portraits of these first Hall of Fame honorees.

George Washington—1732-1799

The father of our country, George Washington, was a successful farmer and a leader in developing new farming practices. He conducted tests with manures and sought improved varieties of crops. He developed practices to reduce soil losses on the slopes of Mount Vernon.

After years of unfortunate experience with the English market, Washington stopped growing the customary crop, tobacco, and began raising corn. He grew corn for human food and for hog feed. By 1770 he was selling grain and pork locally and was operating a water-powered mill which ground large amounts of flour. Washington demonstrated that the American farmer could be self-sufficient and independent.

Thomas Jefferson—1743-1826

Referred to by many as the father of American scientific agriculture, Thomas Jefferson devoted much of his life to inventing, plant and animal breeding, and conservation. He invented a seed drill, a hemp brake, a threshing machine, and a moldboard for plows. Jefferson imported Merino sheep to improve the breed in America. The scientific farmer experimented with new crops, especially clover and peas, rotated crops, and used soil conservation practices at Monticello. He also tried to maintain fertility with marl, gypsum, and animal and vegetable manures. The statesman-farmer believed that independent farmers were the strength of the nation and promoted agricultural education in colleges and universities.

Cyrus Hall McCormick—1809-1884

Most of Cyrus McCormick's inventions related to the

farming of western Virginia where he grew up. In the plantation blacksmith shop he made a water-powered hemp brake and hillside plow. He received a patent on the plow in 1831 and invented a reaper the same year. He constantly made changes on the reaper.

In 1847 McCormick moved to Chicago and set up the first large-scale farm machinery plant. By 1860 the Chicago plant was building 4,000 machines a year. His business practices included a stated price, written guarantees, and printed instructions. His inventions received awards in Paris, London, Hamburg, Lille, Vienna, and Melbourne.

Justin Smith Morrill—1810-1898

As a U.S. Representative and a delegate from Vermont to the 1856 annual meeting of the U.S. Agricultural Society, Justin Morrill began his fight for agricultural education. For six years he tried unsuccessfully to get legislation passed for the establishment of agricultural education. On July 2, 1862, President Lincoln signed the Morrill bill which granted 30,000 acres of public lands to the states. The income from these lands was used to support agricultural and mechanical colleges. As senator, Morrill began campaigning in 1872 for an annual appropriation to the land-grant colleges. President Harrison finally signed the bill in 1890. For his leadership in the land-grant movement, Morrill became known as "The Father of the Land-Grant Colleges."

George Washington Carver—1864(?) -1943

A renowned scientist, George Washington Carver worked in soil science, chemistry, botany, and conservation. In 1896 after many years of college and self study, Carver accepted a position at Tuskegee Institute in Alabama. He urged farmers to shift from producing cotton when the boll weevil was causing alarm. The eminent scientist promoted the use of idle lands for production and developed new food products from crops. His findings with peanuts and sweet potatoes caused many new businesses to arise. Although industry offered high paying positions to Carver, he remained at Tuskegee for 40 years because he believed, "Whatever helps the southern farmer helps the entire South; and what helps the South helps everybody."

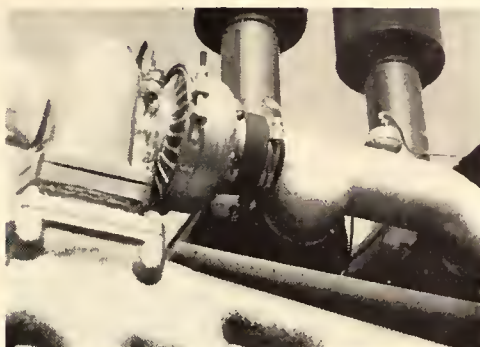
Certified...Turbocharged ...and Hydraul-Shift...

Farm big with these Time Maker advantages



Certified PTO Horsepower.

In the Oliver 1950-T you get all of the rated 105 PTO horsepower. Or more. That gives you a head-start on other big tractors rated by special test results.



Turbocharged, Oliver's way.

Our high-torque turbocharging makes the 1950-T diesel hang on to overloads like a gasoline tractor. It's a smoother, quieter diesel. And it uses only 6 gallons per hour with a 96 horsepower load.



Hydraul-Shift keeps you rolling faster. You have 3 powershifted speeds in each of 6 basic gears—18 speeds in all. You keep all of your horsepower working—travel 20% faster whenever the load permits, or have 20% more tough-spot pull without a pause.

See these and other Time Maker advantages at your Oliver dealers. Oliver Corporation, Chicago, Ill. 60606. Subsidiary of White Motor Corporation.

 **OLIVER**
THE TIME MAKER



NEW

show cattle hair spray



*"...makes your cattle
show so well
it's almost unfair
to competition"*

First instant coat-setting spray for show cattle. Enables you to brush the hair once and forget it. Holds hair in place for hours.

Eliminates repeated brushing in the show ring. Also conditions and brightens the coat. Makes your cattle show so well it's almost unfair to competition.

Available at feed stores, farm stores and show supply outlets.

18-Oz Can\$1.95



grand champion

Now Marketed By
FARNAM COMPANIES, INC.
8701 North 29th St.
Omaha, Nebraska 68112

A Word with the Editor

THE STAFF of your national magazine met for three days in mid-December for a planning session. We spent considerable time on one question: What do readers want editorially?

We wished you could have been sitting across the table so you could have told us what kind of magazine you want. But since that was not possible, you were well represented. All members of the staff present have been members of the FFA and participated in FFA activities at various levels of the organization. A couple of them have been national FFA officers.

We do have suggestions from many of you. You tell us how you feel about the magazine in the letters you write from time to time, and we are always pleased to get them.

We also have a pretty good idea of what you like in your magazine as a result of readership studies made on some of the issues each year.

And we do have the opportunity to visit with many of you at various FFA meetings and activities throughout the year. These are always opportunities to get your opinions and comments about the magazine.

So you were very much in our thoughts as we set about our task. We agreed that you want a magazine that brings you news, information, and entertainment.

News about FFA and agriculture. What's going on in your organization at the local, state, and national levels? What are individual members doing? What's new in agriculture?

Information about agriculture, including articles about crop and livestock production, management, careers, recreation, and related subjects. Information that will help you get started in farming or find a career in agriculture. Information about FFA that will help your chapter become a better chapter and information that will help you become a better FFA member, a better student, and a better citizen.

Entertainment, yes, we believe you want to smile occasionally as you read your national magazine. That is the reason for the jokes and cartoons. In fact, you must agree, because you have consistently given the joke page the highest readership score of any page in every issue studied to date.

Do you agree that this is the type of magazine you want? We would like to have your comments so let us hear from you.

DID you hear that a former FFA member has been placed in a key position in one of our major political parties. He is the Honorable Fred R. Harris, U.S. senator from Oklahoma, who has just been named Democratic national chairman. In this position he will take over management of the party.

Senator Harris was a member and officer of the Walters, Oklahoma, FFA Chapter and won the state FFA public speaking award. He was a member of the chapter's FFA beef judging team and the poultry judging team that won the state title.

NOW before we are accused of partisan politics, let me hasten to add that Oklahoma's other U.S. senator, the Honorable Henry Bellmon, is a member of the Republican Party and was also an FFA member during his high school days. Senator Bellmon was a member of the Billings FFA Chapter, and his farming enterprises included wheat, registered Berkshire swine, and Hereford breeding cattle. Before his election to the senate, Senator Bellmon served a term as governor of Oklahoma.

Wilson Carnes
Editor



Mr. Donald Hathaway, a dairy farmer from Fredericktown, Ohio, presented the official band uniform which is displayed by David McCoy of the Ohio FFA and Dr. J. H. Lintner.

Your FFA Jacket

ONE MORE significant item in FFA history was presented to the FFA Archives. The presentation of one of the first official FFA band jackets occurred at the National Convention during the pageant, "Our Forty Years."

Dr. J. H. Lintner and Mr. Walter M. Tolan, co-designers of the first FFA jacket, were on hand for the presentation. Mr. Tolan, of the Universal Uniform Company, also helped create the present day FFA jacket.

In 1933, Dr. Lintner, then advisor at Fredericktown, Ohio, offered to have his 30-member chapter band play at the National Convention. Previously the FFA invited state bands, but the general lack of money during the depression changed this.

The band members had summer uniforms, but these were not appropriate for the October weather in Kansas City. At the time corduroy was in fashion with high school students. National blue was not available so the manufacturer used navy blue. The emblem was patterned after the chapter emblem. Thus the original jacket appeared with an ear of corn, the owl, and the plow. The eagle was not added to the official emblem until a year later.

A milestone in FFA history happened in 1964 when a member of the Audubon, Iowa, Chapter purchased the one millionth FFA jacket. In the future appropriate displays of these special FFA jackets will be developed as a part of the FFA Archives.

NEW Chairman of Sponsoring Committee

THE FUTURE FARMERS of America Foundation elected Mr. Donald Danforth, Jr. of Ralston Purina Company as the 1969 chairman of the Sponsoring Committee. He succeeded Mr. L. W. Davis, vice president of Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin.

Donald Danforth, Jr., executive vice president of Ralston Purina Company and director of Purina's Chow Division, is widely recognized as a leader in the feed industry. He joined Purina in April of 1957 as a trainee at the Nashville, Tennessee, plant. In 1959, he transferred to the company's general offices in St. Louis as assistant to the executive vice president. Mr. Danforth's responsibilities embraced all production, research, sales, and marketing services for the company's agricultural products, and in 1968 he was elected executive vice president of the company.

Mr. Danforth's principal responsibility as chairman will be to contact potential fund donors during 1969. Currently, some 450 businesses, industries, organizations, and individuals make annual contributions to the FFA Foundation program. The Foundation provides funds for award programs to stimulate higher achievement among FFA members throughout the nation. This year's budget is over \$225,000.

Mr. Sam White, Jr., Cleveland, Ohio, executive vice president, Farm Group, White Motor Corporation, who will serve as vice chairman of the Sponsoring Committee, and Mr. J. B. Prendergast, New York, New York, president, Agricultural Division, Allied Chemical Corporation, who will serve as second vice chairman of the Sponsoring Committee, will assist Mr. Danforth.

Since 1944 the FFA Foundation has been fortunate to have leaders such as these as friends and supporters of the FFA. You, as FFA members, will want to thank them personally for their active promotion of the awards programs. You can thank them by writing to: Mr. Donald Danforth, Jr., Vice President, Ralston Purina Company, Checkerboard Square, St. Louis, Missouri 63102.

Mr. Donald Danforth, Jr., Sponsoring Committee chairman delivers his address to the official delegates and chapter representatives at the National FFA Convention in October.



FFA... an opportunity for youth.



USING A NATIONAL PUBLIC RELATIONS THEME

“FFA ... an opportunity for youth” is the national public relations theme which will be used by local FFA chapters and state associations all during 1969. It is the purpose of this theme to tell people in your community that FFA provides an opportunity for youth in agriculture to learn, to do, to earn, to serve. Experiences in leadership, citizenship and cooperation, and the pursuit of vocational and educational objectives provide these young people with opportunities to excel, to grow, and to become outstanding youth leaders for agriculture in America. No doubt there will be many events in your chapter or state association during the year based upon the national theme. National FFA WEEK, February 15-22, 1969, will be the high point of all these promotional events.

The list of activities of chapters and how they will use this theme is a long one. Here are a few ideas you might want to borrow for your chapter.

- Develop an exhibit showing “FFA ... an opportunity for youth” to learn, to do, to earn, to serve. Use photographs or scenes to show each of these four phrases from the FFA motto.

- Conduct a special school assembly or program for a local civic or farm organization. The chapter president might lead off the program with introductory remarks. Then the members could elaborate on these topics. The

first member could elaborate on how FFA provides members an opportunity to learn—about agriculture, about leadership, about themselves.

A second member could speak on how FFA provides members an opportunity to do—to put into practice what is learned in the classroom, to get involved and do something, a chance to work.

A third speaker could talk about how FFA provides members an opportunity to earn—learn the value of money, to be self-sufficient, what it means to earn a living, the importance of record keeping, earning money for chapter events.

Finally, a member could emphasize how FFA provides members an opportunity to serve—in leadership roles and as good members serving FFA and American agriculture, their chapter, school, or community.

- The Roswell, New Mexico, FFA Chapter selected and honored the first baby born during FFA WEEK in Roswell as the “FFA WEEK Baby.” Brian Alan Hall was born February 20, 1968. The FFA presented the baby a \$25.00 savings bond and named him an Honorary Chapter Farmer—a real opportunity for youth.

- The New Ulm, Minnesota, FFA served cherry pie and coffee to their school faculty on George Washington's Birthday.

- Other ideas include:

- Poster contest among elementary

students using the national theme.

- Put up a photo exhibit beside the concession stand at ball games.

- Prepare a summary of agricultural opportunities in your community. Present at chapter meeting.

- Attend church as a group during FFA WEEK. Perhaps a member would be invited to participate in the service.

- Invite eighth grade students and their parents to a special meeting. Discuss opportunities for them as students of agriculture and members of FFA and their future in American agriculture. This event might be anytime during the year.

- Have a series of bulletin boards in the school showing variations of national theme.

- Conduct tour and visit local agricultural businesses to learn about their operation, purposes, and approach to serving agriculture.

A few good activities with thorough preparation in each of the 9,000 FFA communities will mean much in developing good nationwide public relations for the FFA. Some of the activities suggested here may be appropriately planned for any other time of the year.

New ideas that prove successful for your chapter might be usable in other chapters across the nation. Send articles, pictures, reports, or samples of your chapter's public relations activities to the FFA WEEK Scrapbook at *The National FUTURE FARMER*.



Trail Talk

By Ewart A. Autry

THE FIRST DAY I ever carried a gun on the woodland trails a wise old man walked with me. His eyes had seen the things which lived in the woods, and his ears had heard their language.

He taught me a woodland lesson that day which has been of great value. We had spotted a pair of bobcats and were trying to slip near enough for a shot. A blue jay descended suddenly into a low bush just ahead of us. The old man gripped my arm. "Be still," he whispered. "If that jay sees us, he'll tell on us." I was evidently slow about stopping, because the bird began screaming. We never caught another glimpse of the cats.

"The bird told them we were coming," the old man said. "The things of the woods have a certain language they all understand. It is used to speak of danger, distress, and even love. With it they can broadcast a warning of your presence. Every living creature of the woods which hears it, understands. That's why, son, you will have to be careful if you expect to get near the things that live there."

In the years which have passed since then, I have found his statements about the language of the woods to be true.

The dawn of the last day of our most recent deer season found me shivering on top of a ridge overlooking a very narrow valley. Six days of the seven-day season had passed, and I had not even seen a buck. I was determined to bring in one, if possible. That's why I stood and shivered and kept my eyes roving up and down the frosty little valley below me.

As the sun came up I heard the booming of guns in different directions and figured that at least some folks were training their gun sights on bucks. Just as I was

beginning to wonder if I had made a good choice of places for a stand, I saw a buck and two doe enter the upper end of the valley. They walked briskly. If they continued as they had started, they would pass no more than a hundred steps from me. I gripped my gun and did a little more shivering. All went well until the three were even with a willow thicket. There the buck turned aside, walked into the thicket, and stopped. The doe continued down the valley and went past me without even a glance in my direction. I could see the buck just inside the willows. I wondered at first why he had stopped, but then I saw the moving of the willows at his head, and realized he was feeding.

For 45 minutes I waited for that buck to come on down the valley, but he kept nipping at the willows and never moved out of my sight. I finally decided the only thing to do was to stalk him. I backtracked over the ridge, then moved up its side until I was about even with him. I was on the south side of the valley and the wind was from the north. There was little chance that he would catch my scent. I eased over the ridge at a point where a half-dozen small oaks were closely clustered. When I reached them I saw the deer. Carefully I raised my gun. Just at that moment a blue jay screamed. The buck made a long leap and disappeared before I could think of drawing bead on him.

What happened? Nothing, except that the jay told the buck I was there. He must have said, "Run. Run. There's a dirty, low down rascal hiding under this bush." Whatever he said, the buck understood it.

(Continued on Next Page)

Trail Talk

On another occasion I was out after squirrels. I discovered a bunch of the gray fellows eating nuts in a large scaly-bark hickory. They were making so much noise I was sure I could slip within shooting range. I overlooked one thing. A crow was sitting in the top of a nearby dead chestnut. I was about halfway within range when the black fellow discovered me and gave a rapid series of caws. Instantly the squirrels scattered. Seconds later the scaly-bark was barren of them as if they had never been there. There was no doubt but that they had distinctly understood the alarm language of the crow.

The burden of giving the danger signal does not rest entirely on the bird family. Once a friend and I were hidden beside a small lake waiting for a raft of ducks to drift within range of our guns. All was well until a squirrel came out of a hole in a cypress and discovered us. The pert fellow gave his tail a few jerks and started chattering at us. With one accord the ducks arose and retreated hurriedly. That squirrel had spoken a language which they thoroughly understood. Not for a moment did they doubt his word.

The danger language seems to be instantly understood even by the slowest thinking creatures. One day I saw a large turtle sunning on a sandbar. I wanted a closer look at him, so I decided to slip as near as possible, then run between him and the water and catch him. The old fellow's back was toward me. I was almost ready to make my run when a kingfisher spied me. The bird gave his peculiar rattling cry. Instantly the big turtle scrambled quickly down the sandbar and into the water.

There is also a distress language which seems to be well known among woodland inhabitants, especially the feathered ones. The other dwellers may understand it, but they do not seem to answer it as readily as these.

One spring a pair of mocking birds nested down by my garden. One morning I heard a single choked sound from one of them, followed by the distressed cries of the other. I hurried to the place, but before I could reach it the cries of the mocking bird had been joined by those of



many birds. When I came in sight of the nest I found the saplings alive with birds. Among them were a sparrow hawk and a crow. Normally the crow is hated by other birds because of his nest robbing activities, and the sparrow hawk for his preying on smaller birds. At first I thought one of the two might be the cause of the clamor. Then I saw they were joining the other birds in screaming and diving at something on the ground.

I discovered a woods cat holding a dead mocking bird and snarling up at the screaming host of birds. The instant he tried to move away, he was savagely attacked from every angle. The birds would fling themselves at him like an endless stream of dive bombers. Once he was almost bowled over by a swift dive of the crow. The cat would drop the bird and slash at his attackers with his claws, but he seemed actually terrified by their onslaughts.

There also seems to be a woodland language of love. For several years I kept a pack of fox hounds. Their only aim in life seemed to be to run fox. From our house here in Mississippi in the heart of Whippoorwill Valley we very often hear the weird yapping of fox as they gallop along the trails or sit on the hilltops. Those sounds usually started an eager whining among the hounds. Many times I threw open the kennel gate, and the dogs raced silently and swiftly toward the yapping fox. In a few moments they would be hot on his trail.

That happened at all times of the year except during the fox mating season. At that time foxes howl and yap more than at any other time, but there was an entirely different response from my hounds. Instead of whining eagerly to be off on the trail, they pointed their noses toward the stars and howled softly. If I let them out, they sat around solemnly and listened to the call of the fox, but made no move to seek his trail. They thoroughly understood his language. They knew he was singing to a mate and had no intentions of interfering.

There are many who are deeply interested in things that live in the woods. Some hunt them with guns, some with cameras, and others just for the purpose of seeing them. Whatever the reason, my friend's advice still holds true — "The things of the woods have a signal language they all understand. That's why you'll have to be careful if you expect to get near them."



**Go ahead...straighten
up the sag! It still won't
stand like Hill Fence**

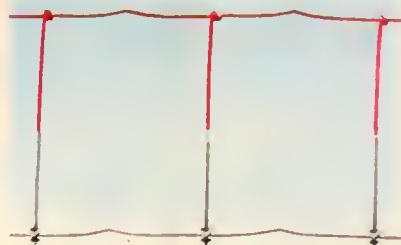
No matter how you grunt and sweat to straighten up ordinary fence, it simply won't stand like Red Brand Hill Fence. That's because the exclusive Stiff Stay wires in Hill Fence run top to bottom...in one continuous strand. They're locked to line

wires by exclusive Square Deal® knots that can't slip. Yet, you have the flexibility needed to follow uneven ground without buckling.

Red Brand lasts longer, too. It's Galvannealed® with zinc fused deep into the copper bearing steel wire to resist rust.

So go ahead...straighten up the sag and make your fence look better. You'd be

better off to see your Red Brand dealer and ask for Hill Fence. Keystone Steel & Wire Company, Peoria, Ill. 61607.



RED BRAND®



Local Chapter Sponsors Championship High School Rodeo

THE ANNUAL Texas State Championship High School Rodeo is sponsored each year by the Hallettsville FFA Chapter. The chapter has sponsored the rodeo since its origin in 1947, twenty-two years ago.

Mr. Claude Mullins, the superintendent of the Hallettsville Public Schools at

the time, put the FFA in charge of the rodeo. Mr. Mullins along with Alton Allen, an attorney, and Mr. Leon L. Kahanek, a pharmacist, originated the idea of a high school rodeo.

The Hallettsville FFA takes complete charge of the rodeo. The members process entry blanks and answer cards and

letters sent in by the rodeo entrants. They take care of the concessions, program sales, and work on the corral crews. A committee of 20 local citizens assist in putting on the yearly event, and vo-ag teacher Douglas Marek at Hallettsville serves as state secretary for the championship rodeo.

The first state high school rodeo in Texas drew 87 contestants. Following that, New Mexico had a similar rodeo in 1948. In 1949, Louisiana, Montana, and South Dakota held state rodeos.

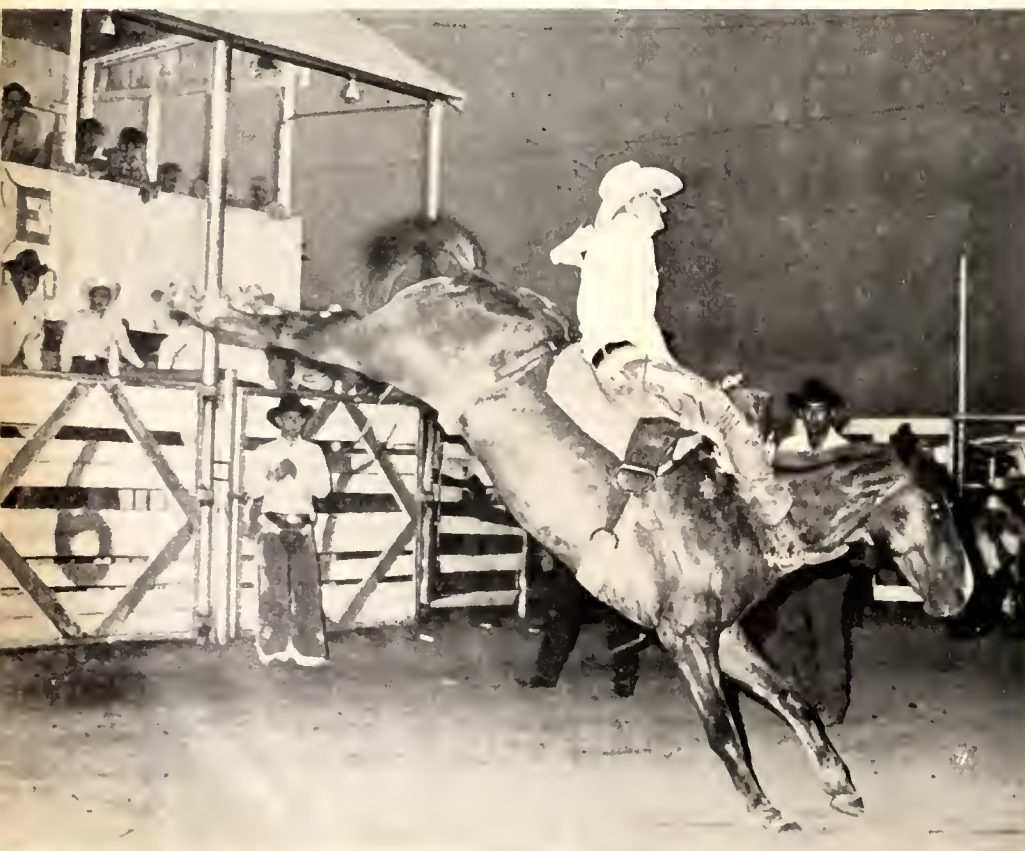
This sequence of events led to the first national high school championship rodeo. It was held in Hallettsville, Texas, in 1949 with the state champions competing. There are now over 22 member states in the National High School Rodeo Association.

A high school rodeo operates under the same rules as an adult rodeo does. The horses buck just as high and the bulls are mean as ever. However, the contestants battle for saddles, buckles, rope cans, spurs, chaps, and other trophy awards rather than cash prizes. Last year prizes at the Hallettsville State Championship Rodeo amounted to a value of \$3,800. Outstanding boy and girl contestants also volley for \$800 in college scholarships and a Quarter Horse colt.

Nearly 20,000 attended the 22nd Annual Texas High School Rodeo last June. The five-night event also included a western parade. Over 6,000 watched the parade of school bands, a twirling corps, and floats.

The Hallettsville FFA Chapter has done such a good job promoting the rodeo that the town now is known as the "Home of the Texas State Championship High School Rodeo."

Horses buck high and hard at the Texas State Championship High School Rodeo



FARM BUSINESS RELATIONSHIPS

What business relationship is best for your father-son operation?

YOUR DECISION to farm with your father or to take over the family farm may require a new farm business relationship. An understanding of the different types of business relationships that exist should help you to decide which one is best for your farming situation. They are described here by Arnon Allen, University of Wisconsin farm law specialist.

There are three basic types of legal relationships for a farm business. These are the single proprietorship, partnership, and corporation.

The single proprietorship is the simplest and most common farm business. With this business relationship, one person is owner and manager and is personally liable for all business actions.

Under a single proprietorship, a father and son can form an employer-employee relationship or a landlord-tenant relationship.

The son does not manage under an employer-employee relationship, and he is not liable for any business actions since he is merely an employee. This is a poor business relationship for a father and son because the son has no managerial responsibility.

Forming a landlord-tenant relationship gives the son managerial responsibility. If there is a lease, the father can exercise some managerial responsibility and still be landlord for legal taxation purposes. The son, as tenant, is liable for his business actions, and the father, as landlord, is not liable.

A partnership relationship reduces taxes if the profits are divided between father and son. Anyone can be a partner who contributes capital or labor and shares management. A partnership will also allow the son to take over the farm business by increasing managerial responsibility.

There are several disadvantages to a partnership. It terminates at the will of any partner, and all partners have equal managerial rights, even if one partner owns more assets in the partnership.

Liability for a partner's business actions is the main disadvantage of a partnership. To avoid liability for a partner's actions, some business co-owners have signed a contract saying, "This is not a partnership." The courts do not recognize such statements.

The courts say a business is a partnership if there is

participation in management by both co-owners, a sharing of profits, a sharing of losses, assets are owned together, and if the business has a name, single joint bank account, and a single set of farm records. The land and other assets do not have to be co-owned for a business to be recognized as a partnership.

Using a lease with a landlord-tenant relationship avoids having your farm operation recognized as a partnership.

A partner's liabilities are limited to his assets in the business under a limited partnership. However, he must be a "silent partner" with no managerial power.

Under a single proprietorship and a partnership, the owner or owners are personally liable for all business actions. Forming a family corporation avoids personal liability. Liability is limited to the investment in the farm business. This idea of limited liability is important in a large farming operation where large debts may be incurred.

Forming a family corporation allows easy transfer of interest in the farm business from father to son. Also, there may be some tax advantages and, since the shareholders are usually the employees of a family corporation, they can receive retirement plans, life and medical insurance, and other benefits not allowable with a single proprietorship and a partnership.

The disadvantages of a family corporation include: incorporation expense, more complicated income tax forms, paying social security taxes for employees, no capital gains since depreciation ends at zero, and there is little or no market for a shareholder if he decides to sell his interest in the farm business.

Since both the corporation and the shareholders are taxed on the same profit from the farm business, a tax-option or pseudo corporation may be formed to avoid this double taxation. Under this business relationship, the shareholders elect to be taxed as individuals.

Double taxation can also be avoided by paying the farm employees salaries and bonuses that will keep the corporation's profits small.

Choosing the right type of business relationship for your farming situation may be one of the most important decisions you will make as you break the entry barrier into farming.

Prior to 1963 many plant geneticists believed low protein *quality* in corn was unavoidable. Hence universities and seed companies conducted very little research on *quality*.

A classical experiment by the Illinois Agricultural Experiment Station proved protein content to be highly heritable. After 65 generations a high strain reached 25 percent protein, and a low strain regressed to 4 percent. Although protein *quantity* in the high strain showed possibilities of more improvement, the *quality* of protein degenerated considerably. Therefore, further attempts to increase protein *quantity* of normal corn became impractical.

Opaque-2 gene. Then in December of 1963 a Purdue University research team, plant geneticist Dr. Oliver E. Nelson and biochemist Dr. Edwin T. Mertz, discovered a gene which raised the *quality* of protein in corn. This mutant recessive gene, commonly called *opaque-2*, causes an increase of certain amino acids, particularly lysine and tryptophan.

The outward appearance of corn with the *opaque-2* gene generally lacks luster. Also, unlike normal corn, *opaque-2* kernels restrict the passage of light, consequently the name *opaque-2*.

Seed production. The finding stimulated seed companies and universities to concentrate their efforts on protein *quality*. Research moved forward in the corn belt regions of Ohio, Indiana, Illinois, Wisconsin, Minnesota, and Iowa with plant breeders growing two generations of *opaque-2* seed stock each year. To speed up progress researchers bred three generations a year in tropical and semi-tropical areas—Jamaica, Florida, Hawaii, and others.

Final testing, however, must be done in the region where farmers will grow *opaque-2* hybrids. Most seed companies have reached this point in their research.

Funk Bros. Seed Company expects to make a limited amount of seed available to farmers by the fall of 1969. Besides testing in the corn belt, Funk Bros. is devoting considerable effort on high lysine corn in the protein deficient areas of the world. They are now conducting marketing research in South America on materials produced by Corn Products Company.

The Pioneer Hi-Bred Corn Company grew 20 high lysine single crosses in 1968. They will compare the results of these hybrids with their normal counterparts. Also, 70 inbred strains now being converted to *opaque-2* varieties will be tested. Pioneer plans to sell high lysine seed in 1970.

In the spring of 1968 Northrup, King and Company distributed, on an experimental basis, 300 bushels of *opaque-2* corn to midwest farmers. Should tests on the 1968 crop prove favorable, the company will distribute about 2,000 bushels this spring. This could mean a 1969 harvest of 1-1½ million bushels for testing and feeding.

Cargill, Inc. will distribute some high lysine corn to

LYSINE CORN- A "SUPER GRAIN"?

By Ron Miller

selected producers this spring. They produced the seed in Iowa and plan to use farmer participation as a research tool. In short, at least three companies plan to distribute enough seed for 18,000 acres this spring, while others will wait one or two more years before placing high lysine seed on the market.

Field performance. High lysine corn generally yields 90-95 percent of their normal counterparts. Many plant breeders feel the production of more generations and selection work will raise yields. Others, however, believe the low density of the endosperm starch in *opaque-2* contributes to low yields.

Opaque-2 varieties tested at the University of Illinois, under the direction of Professor D.E. Alexander, and summarized in Table 1 averaged 8 percent less than the normal hybrids in the 1967 trial. The 1966 tests revealed *opaque-2* yielding only 85 percent as well as the normal counterparts. Selection work on more generations may provide some explanation for a higher percentage in 1967. Also noteworthy, Illinois researchers found seven *opaque* hybrids equaled or out-produced their normal counterparts in the latter trial.

Also in Table 1 note the lower weight per 100 kernels in *opaque-2* varieties as compared to normal hybrids. Analysis of a synthetic *opaque-2*, corn similar to open-pollinated varieties, showed that about 10 percent of the population equaled the 100-kernel weight of normal corn.

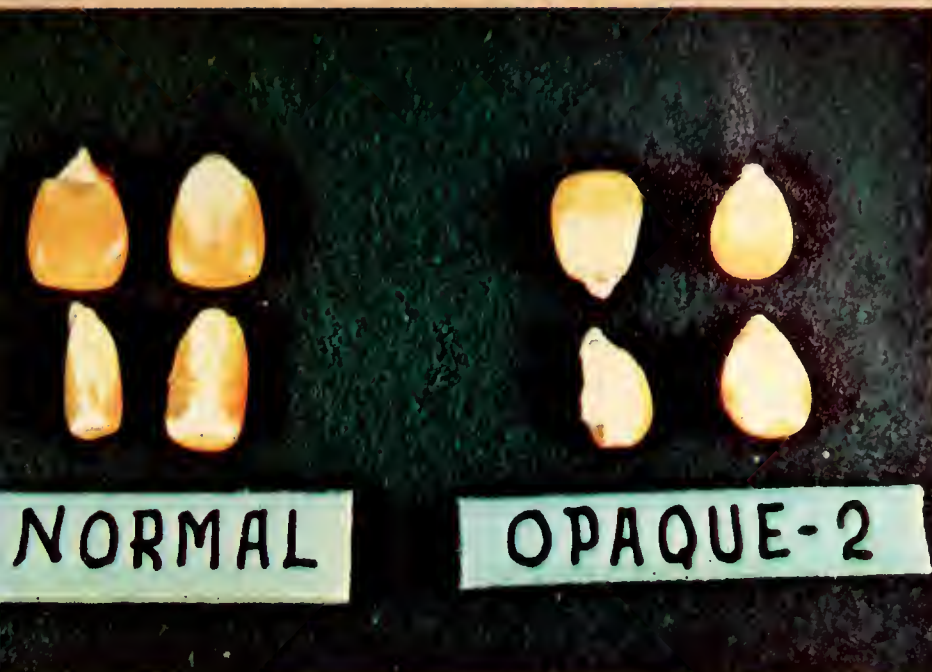
In Illinois studies the yield per plant corresponded positively with 100-kernel weight. This could mean that continued selection will increase the yields of high lysine corn. Kernel density on the other hand showed little relationship to weight of grain per plant. Consequently, improving the *quality* of protein may not necessarily reduce yields even though it does affect the density of the kernel.

Some *opaque-2* hybrids showed little difference in moisture content from counterparts; however, most high lysine strains reveal higher amounts of moisture (Table 1) than

TABLE I
University of Illinois
Mean performance of opaque-2 single cross hybrids and normal counterparts.

	Yield (Bu./A.)	Moisture in Grain (%)	Erect Plants (%)	Protein (%)	Wt./100 Kernels (g.)
		1966		(17 comparisons)	
Opaque-2	105	26.4	97	11.1	29.9
Normal	124	24.0	92	10.8	34.6
Mean Difference	-19*	+2.4*	—	+0.3*	4.7*
% of Normal Hybrid	85	110	—	102	86.4
		1967		(19 comparisons)	
Opaque-2	86	26	74	—	—
Normal	93	22	67	—	—
Mean Difference	-7	+4*	—	—	—
% of Normal Hybrid	92	118	—	—	—

*Difference significant at 5% level of probability.



Courtesy of Funk Bros. Seed Co.
Notice the dull appearance and the amount of soft starch in the opaque-2 kernels.



Courtesy of Northrup, King & Co.
The four groups at the top show the result of adding one, two, or three opaque-2 genes to an inbred. Notice the darker coloration of the present day hybrid in the lower corner.

their normal counterparts. Some data suggests that *opaque-2* may dry more rapidly in the field than dent corn. The soft endosperm increases the possibility of shelling damage and cracking in *opaque-2* varieties. This tendency could be corrected by machine modification or by harvesting at a lower moisture level. Corn pickers apparently cause less damage than combines. The problem of cracking is not a big concern if corn is for on-the-farm use, but contract corn must be in good condition.

Because the *opaque* trait is recessive, growing *opaque* corn requires isolation from other corn varieties. This can be done by distance, maturity, time of flowering, or by border rows. The main problem here is delivering a product free of low *quality* protein kernels. This kind of contamination will decrease the *quality* of protein and lower the market price.

Dr. N. P. Neal conducted germination experiments at the University of Wisconsin. As shown in Table 2, most *opaques* have lower germination percentages, especially in cold soils. Some varieties, however, do compare well with the normal counterparts.

The standability of *opaque* hybrids, noted as erect plants in Table 1, shows no significant difference. *Opagues* mature slower, but not appreciably, and are more susceptible to ear rots.

Kernel analysis. When comparing high lysine and normal corn the chemical analysis is most important. Analysis of amino acids in *opaque-2* varieties show yield is independent of protein *quality*. Dr. O. E. Nelson of Purdue University reported 15 percent protein corn with the *opaque-2* gene had *quality* similar to *opaque* corn with only 10 percent protein.

TABLE 2

University of Wisconsin and University of Illinois
Percent germination of opaque-2 and normal versions
of backcross recoveries in cold tests, 1967.

Variety	Opaque	Normal
R803 (BC3)	89	93
R802 (BC2)	13	90
WF9 (BC2)	5	97
M14 (BC1)	91	98
R801 (BC1)	25	97
Mean of 24 comparisons	44	88

The development of the copper extraction-fractionation method for separating proteins in corn greatly accelerated the search for better *quality* protein. The test separates zein, an endosperm protein deficient in lysine and tryptophan, and glutelin, an endosperm protein high in these amino acids. *Opaque-2* endosperm tested 15.7 percent zein and 42.3 percent glutelin of the total protein. Normal corn varieties contained 41 to 52 percent zein and 17 to 28 percent glutelin; thus revealing a complete reversal of the zein to glutelin ratio in the endosperm.

The research team at Purdue, Drs. Edwin T. Mertz, Lynn S. Bates, and Oliver E. Nelson, examined the amino acid content as early as 1964. Endosperms of normal and *opaque-2* corn are compared in Table 3 and each contained exactly 8.69 percent crude protein. Testing the embryo is important because the endosperm carries about 80 percent of the total protein and the embryo carries 20 percent. Notice the *opaque-2* endosperm contains 69 percent more lysine than the normal endosperm.

Recent data from the Illinois research team of Drs. D. E. Alexander, R. J. Lambert, and J. W. Dudley show that lysine content based on the percent of total protein in whole grain may be increased beyond the .4 percent level of current *opaque* varieties. They produced several inbreds and derived hybrids with .5 percent lysine or more.

Still another factor, nitrogen availability, affects protein synthesis and storage in the kernel. Plant breeders say nitrogen can affect the amount of protein by as much as 2½ percent. The increase in protein is accompanied by a decrease in starch or oil, or both. Nitrogen availability affects *opaque-2* and normal corn in a similar manner.

Most reports conclude that *opaque-2* averages much higher in potassium content than normal corn. Plant breeder S. F. Goodsell reported 27 percent more potassium. According to research by Mr. C. D. Elmore of the University of Illinois (Table 4), *opaques* averaged 71 percent more potassium. The cause is hereditary and requires further research.

Floury-2 gene. *Floury-2*, another newfound gene, increases protein *quality* by about the same amount as the *opaque-2* gene. In *floury-2* the amount of methionine, another amino acid, is higher than in normal or *opaque* corn. All other amino acid composition is similar. *Floury-2* stock

(Continued on Next Page)

LYSINE CORN- A "SUPER GRAIN"?

probably have less reduction in kernel weight and show signs of less yield reduction. By crossing *opaque-2* and *floury-2*, breeders eventually can obtain a double mutant. The visual appearance of a double mutant is similar to normal corn, and preliminary tests indicate that it appears denser and harder than *opaque-2*.

Livestock feeding. In 1964 Dr. Richard Pickett of Purdue University conducted feeding trials on three groups of pigs. Group 1 received *opaque-2* corn and gained .94 pounds per day. Group 2 gained only .26 pounds per day on normal corn, and Group 3 gained .93 pounds per day on normal corn supplemented with soybean meal. At the time, however, normal counterparts of the *opaque* variety were not yet available.

At the University of Minnesota, Professor Robert Meade and I. R. Pick put hogs weighing about 130 pounds on a 42-day trial. A 12 percent ration of normal corn and soybean meal produced approximately the same amount of pork, 1.85 pounds per day. Adding pure lysine to the high lysine corn diet did not change the results.

In another test at Minnesota hogs weighing 30 pounds were put on a 21-day trial. Pigs fed lysine corn and soybean meal gained 1.3 pounds daily and required 2.2 pounds of feed per pound of gain. The ration contained 13.5 percent crude protein. A 16 percent ration of normal corn and soybean meal produced a gain of 1.45 pounds daily. The hogs required 2.1 pounds of feed per pound of gain when fed this ration. The high lysine corn reduced the need for soybean meal by one-third, proving the high digestibility and availability of protein.

Feeding trials by Dr. A. H. Jensen, nutritionist at the University of Illinois, further substantiates rapid gains from non-supplemental high lysine corn. His data, summarized in Table 5, demonstrates that the level of specific amino acids, not crude protein content, causes a gain in weight. Notice especially how favorably the gains of diet 4, a 9.3 percent crude protein ration, compare with diet 1, the 12 percent ration.

Alexander of Illinois points out, if corn breeders accept

TABLE 3

Purdue University

Amino acids in normal and opaque endosperms from the same ear of corn (expressed as grams per 100 g of protein), 1964.

Amino Acid	Endosperm	
	Opaque	Normal
Lysine	3.39	2.00
Tryptophan*	—	—
Histidine	3.35	2.82
Amide ammonia	3.41	3.28
Arginine	5.10	3.76
Aspartic acid	8.45	6.17
Glutamic acid	19.13	21.30
Threonine	3.91	3.48
Serine	4.99	5.17
Proline	9.36	9.67
Glycine	4.02	3.24
Alanine	6.99	8.13
Valine	4.98	4.68
Cystine	2.35	1.79
Methionine	2.00	2.83
Isoleucine	3.91	3.82
Leucine	11.63	14.29
Tyrosine	4.71	5.26
Phenylalanine	4.96	5.29

*Tryptophan presents a special problem because it is destroyed by hydrolyzing agents. Other underlined amino acids in the opaque also increased. 1964.

TABLE 4

University of Illinois
Potassium content of whole kernels of *opaque-2* hybrids and their normal counterparts, 1967.

Variety	Percent of dry matter	
	Normal	Opaque-2
(R802 x R803) R181B	0.34	0.56
(R802 x R803) W64A	0.29	0.52
(R801 x R802) Oh43	0.33	0.59
(R801 x R802) Mo17	0.33	0.54

this feeding data, several questions arise. Should they try to narrow the lysine to protein ratios, or select for higher protein content, or should they select for both traits? Corn with 10 percent protein and 5.5 grams of lysine per 100 grams of protein is equivalent in lysine per pound dry matter to corn with 13.7 percent protein and 4 percent lysine.

Older animals need less protein than young animals; similarly, breeding stock require .4 percent lysine based on total protein while young pigs need .7 percent. Therefore, the ideal ratio of lysine to feed intake could be obtained by (1) increasing protein and holding lysine per protein ratio constant, (2) narrowing lysine to protein ratio and holding the protein percent stable, or (3) combining these approaches.

Many problems are yet to be solved concerning high lysine corn, but eventually the hog producer will save many feed costs. Yields relative to regular corn will determine the price of lysine corn. Considering adaptation stages, linear programming shows hog producers need yields of at least 94 percent that of normal corn before making economical substitution of lysine corn for other feeds.

When lysine corn yields reach that of normal corn a feed cost savings of 8.8 percent could result. At the same time the number of market hogs could increase by one million. This would reduce the price per hundredweight by 66 cents.

Poultry research, not yet completed, indicates the superiority of *opaque-2* varieties over normal corn. Because of the higher level of methionine required by poultry, *floury-2* may prove to be the better protein source.

Human nutrition. The pork consumer will benefit more than anyone. With product development and marketing research being conducted now, the public will be well informed once food companies can produce high-protein corn products on a large scale.

The greatest nutritional advantage of high lysine corn, however, lies in providing human food in protein-deficient areas. In South America, Africa, and other starving nations many weaned children suffer from kwashiorkor, a protein-deficiency disease. Also, children who do not get adequate protein before the age of 4 may never really develop full brain potential.

High lysine corn may eventually provide everything necessary for complete human nutrition except a few vitamins and minerals. When fully adapted a "super grain" could give less developed countries a big nutritional boost.

TABLE 5

University of Illinois

Performance of finishing pigs on normal maize and *opaque-2* maize diets.

	Diet 1	Diet 2	Diet 3	Diet 4
Crude protein (%)	12.0	11.0	9.3	9.3
Lysine (%) ¹	0.44	0.45	0.34	0.49
Ave. daily gain (kg.)	0.68	0.73	0.61	0.70
Gain/kg. feed (kg.) ²	0.28	0.32	0.27	0.32
Diet 1. - Normal corn and soybean meal, minerals, etc.				
Diet 2. - Opaque-2 corn and soybean meal, minerals, etc.				
Diet 3. - Opaque-2 corn alone.				
Diet 4. - Opaque-2 corn and synthetic lysine.				

¹ Expressed as percent of total diet.

² Each value represents mean of 4 pens of 9 pigs each.

FUNK'S-G

Makes Farming Fun!



*with the 1969
"304 Bushel Challenge"*



What a great way to produce the biggest corn yield in your community—and win valuable awards and recognition!

The "304 Bushel Challenge", sponsored by the producers of Funk's G-Hybrids, helps you organize a Chapter team to compete with hundreds of FFA chapters across the nation. You and your team practice all steps of modern corn production, then work with local corn specialists to harvest a record-setting yield.

The new corn growing practices help both you and your local community—and your FFA chapter receives valuable local publicity!

Best of all, you have the opportunity to compete for valuable trophies and awards!

Plan now to enter the 1969

"304 Bushel Challenge" corn production contest. Ask your advisor to fill out the coupon on this page, and send today for all details.

The Producers of Funk's G-Hybrids



304 BUSHEL CHALLENGE

Funk Bros. Seed Co.

1300 W. Washington St., Bloomington, Ill. 61701

Dear Sirs: Please send details about the 1969 "304 Bushel Challenge"

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Planning Your Farm Shop

By Ron Miller

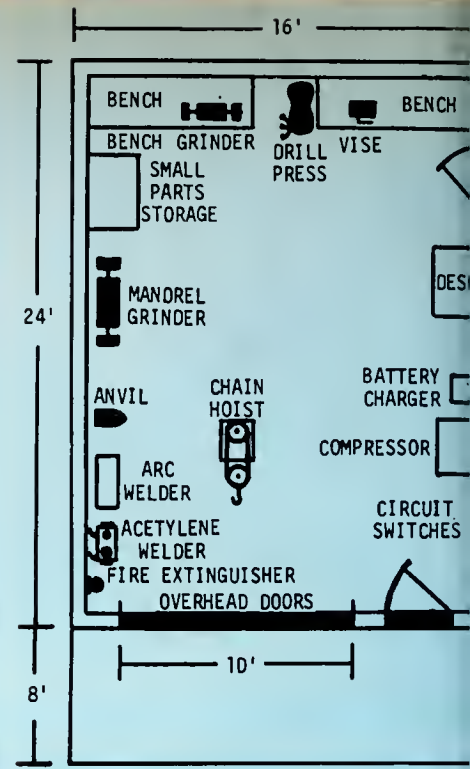


Fig. B Small Shop

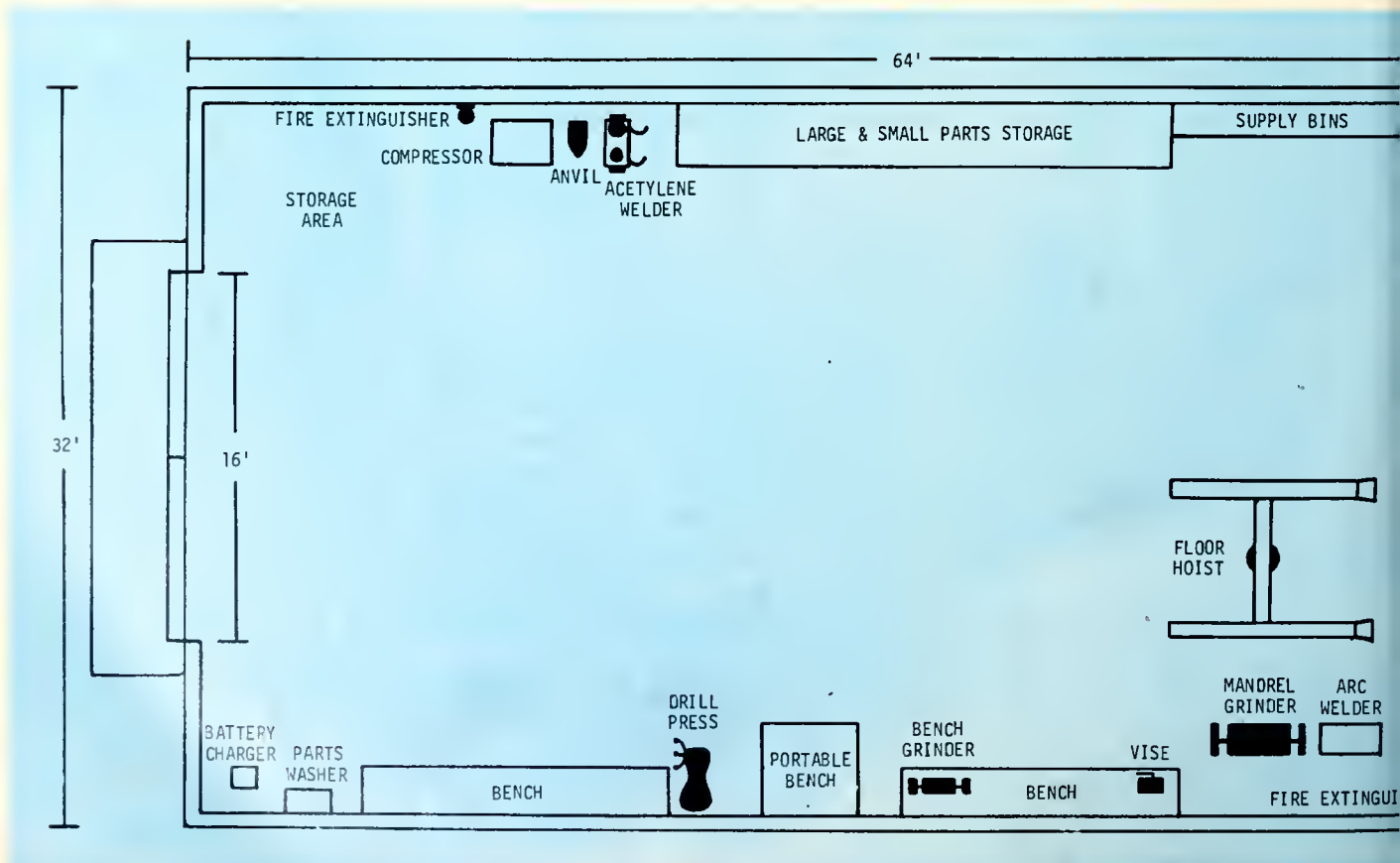
ON EVERY FARM there is a best location for the farm shop. Many farms already have a repair shop as one of the farm buildings. But, if your farm lacks a shop or your shop building is getting old and needs

replacing, consider both the old and a new location for repairing and servicing equipment.

Perhaps part of another farm building can be economically converted into a shop, thus eliminating the cost of a

new building. Maybe your farming enterprise has changed, and you find that you are wasting time, effort, and money because your shop is too far away from

Fig. A Large Shop



where the breakdowns occur. In any event, when you decide on a location be sure to allow for easy access to the building, especially in wet weather.

The size and design of a farm shop depends on the farming operation. A large shop (Fig. A) with plenty of floor space is most convenient for repairing tractors and farm implements. For fixing barn and livestock equipment a smaller shop (Fig. B) is more suitable. Refer to these shop drawings as you continue reading and notice that the shop plans provide ample work space by each piece of equipment.

Don't forget to build doors big enough for your largest piece of equipment. Pouring a concrete apron or platform in front of the shop doors provides additional work space during good weather and helps keep the shop floor clean in rainy weather.

Although often overlooked, planning the floor and floor space requires careful attention. Probably the best material is smoothed concrete because it is easy to clean. If your service work includes many engine repairs it's also a good idea to plan for drains and oil pits. In all cases, allow plenty of room for the equipment.

The amount of heat required in a farm shop depends on two things: (1) the kind of climate in your area, and (2) the type of repairs being made. Many times a simple homemade stove does an adequate job. However, if you

spend much time servicing implements in extremely cold weather, electric heated cables embedded in a concrete floor will furnish ample heat. Wall insulation always improves the efficiency of any heating system.

There is no substitute for good lighting. Therefore, it is advised to include the placement of light fixtures and service outlets in the overall shop plans. Light fixtures should be placed directly above each working area. Other lights should supplement these fixtures so that there will be uniform lighting throughout the shop. To minimize the use of extension cords, install proper service outlets close to the electric tools.

Both fluorescent and bulb lighting will provide adequate illumination. Fluorescent lights furnish cool, nondirectional lighting which diminishes shadows and glare. Regular bulbs supply directional lighting, but the amount of shadows and glare can be reduced greatly by reflectors.

To improve the quality of lighting in your shop, allow for plenty of windows and avoid direct sunlight on the work benches. Corrugated windows now on the market diffuse the sun's rays and reduce glare. Block windows also alleviate this problem.

Both large and small shops require orderly storage arrangements. Parts drawers can be placed along a wall for convenient storage of nuts, bolts, nails, fittings, and other small items. Drawers underneath the work benches provide neat and handy storage for larger parts.

To conserve space the lids of jars can be fastened on a circle of plywood (Fig. C). Then by drilling a hole in the center, a turnstile much like a lazy susan can be made. A device like this permits good use of an otherwise wasted corner.

Keeping tools in a systematic fashion is a major problem in any shop. This is easily solved by racking tools on plywood or pegboard. Simply make or buy

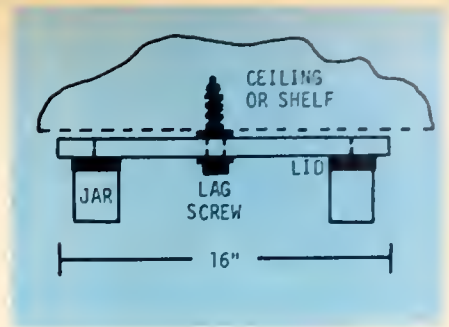


Fig. C Turnstile

hangers and hang the tools in order by size. Wrenches, saws, hammers, screw drivers, and even socket sets can be handled in this manner. A tool box like the one in Fig. D is easy to make and provides additional storage for hand tools.

Other standard tools in most farm shops include an anvil, grinder, vise, and drill press. The placing of these items requires careful consideration. You may have to change a section in the mower bar or sharpen a cycle. These are long, cumbersome parts which require a large working area.

When building a new farm shop it may be well to include an electric hoist. With this device you can lift heavy equipment to any working area. Well-equipped farm shops also have acetylene and electric welding equipment to handle all welding jobs. A welding table, an air compressor, and a parts washer will prove useful on modern farms. To round out your shop you may want to add a table or desk for figuring and sketching.

When providing space for this equipment allow room for repairing and building large machinery. Also consider ventilation and fire hazards. Even if your shop doesn't include a welder or a parts washer it's a good idea to provide adequate ventilation. And a fire extinguisher is a must in every shop.

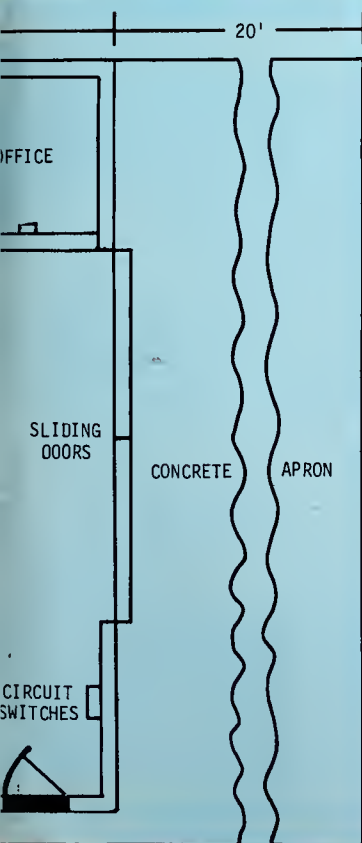
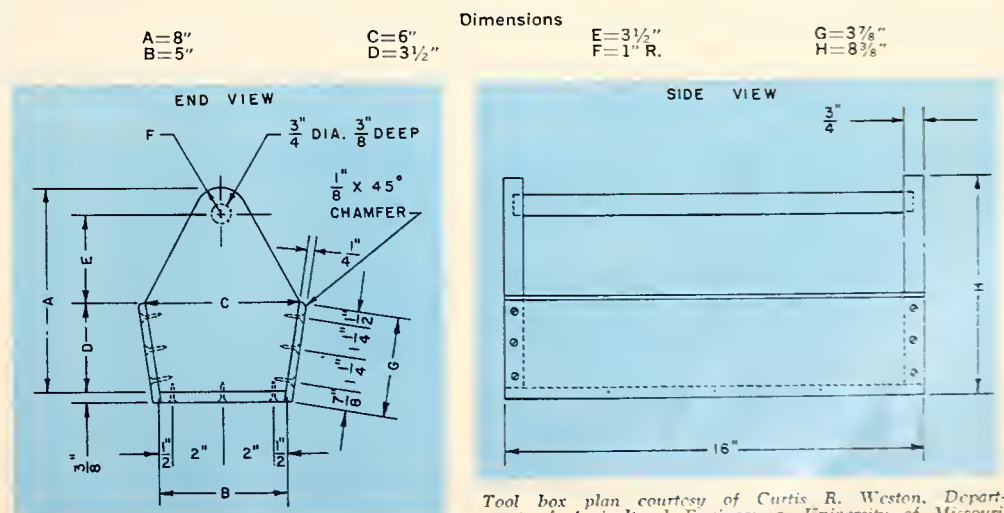


Fig. D Tool Box



Tool box plan courtesy of Curtis R. Weston, Department of Agricultural Engineering, University of Missouri.



Earl Morrall, Colt quarterback.

THE NATIONAL Football League's Most Valuable Player of 1968 almost hung up his cleats several years ago. But he remained and today Earl Morrall is the Baltimore Colts' quarterback. He has been in the pro ranks for 13 years and has been with five teams, but regardless of his play he always seems to wind up as a back-up signal caller.

Earl was raised in Muskegon, Michigan, where he starred for Muskegon High School. His play earned him scholarship offers from several fine colleges, and he finally decided on Michigan State University. He earned All-America honors in an outstanding collegiate career and led the Spartans to a Rose Bowl victory in 1955. *The Sporting News* voted him to their college All-America team that year. The San Francisco 49'ers thought Morrall was good enough to be a first-round choice in the 1956 NFL player draft.

Morrall played in 12 games during his rookie season and attempted 78 passes. He connected on 38 of them for a gain of 621 yards and one touchdown. He was also put in as a punter and did a good job, averaging 37.9 yards on 45 punts. Earl thought he might be on his way, but the 49'ers drafted a hometown boy, John Brodie. They received good value for Earl as the Pittsburgh Steelers gave them two first-round draft choices and a veteran linebacker in a trade.

Morrall played in all 12 games for the Steelers in 1957 and turned in a fine performance. He connected on 139 of 289 passes that gained 1,900 yards and scored 11 touchdowns. He was a good runner too and carried the ball 41

times, gaining 81 yards, and even scored two touchdowns. He was named to the All-Star team for the Pro Bowl game that year.

That record would have kept most quarterbacks in a starting role, but Earl became the No. 2 man for the Steelers in 1958 and was traded to Detroit late in the season. Earl was to spend seven seasons at Detroit as back-up man to the likes of Tobin Rote, Milt Plum, and Jim Ninowski. The only time he had the starting job was in 1963 when Milt Plum was injured. Earl gave it a big effort and turned in a fine season as he completed 174 of 328 passes, a 53 percent average, that gained 2,621 yards and 24 TD's. He also gained 105 yards running on 26 carries for a 4-yard average, and he averaged 39.4 yards on 29 punts. He was really discouraged when an injury kept him from winning the starting job in 1964 and almost called it quits when traded to the New York Giants in 1965.

Earl was the starting quarterback for the Giants in 1965 and came up with another good season for them. He hit his receivers 155 times in 302 tries, gaining 2,446 yards and 22 TD's. He led the Giants, who had only won two games in 1964, to a second-place finish, but this still wasn't enough to win a No. 1 spot. The Giants had obtained Fran Tarkenton from the Minnesota Vikings, and they gave him the starting job since his reputation as a scrambling quarterback was a big draw at the box office. This put Morrall on the expendable list again when the Baltimore Colts were looking for a back-up man this fall. This was to prove a good break for Earl as the Colts' fine quarterback, John Unitas, hurt his arm in one of the last exhibition games.

SPORT TRAIT

By Stan Allen

Earl Morrall is a big man, 6 feet, 2 inches tall and weighs around 210 pounds. He is very agile for his size, is a fine ball handler, and has a good live passing arm. Earl had a big job to learn the Colts' numbering system and all the plays in their varied offense with just three weeks before the season started. The Colts opened against the 49'ers and Earl got off to a shaky start when his second pass was intercepted. He overcame this quickly by passing for two TD's and called a superb game to win 27-10. Earl went on, to make winning a habit as he led the Colts to 13 wins against only 1 loss in regular season play and an NFL championship by beating the Cleveland Browns on December 29. The next stop will be the NFL-AFL Super Bowl in Miami against the New York Jets. He has filled in nicely for Unitas and has even brought about a change in the Colts' style of offense. He has used his running backs more than Unitas did to give the Colts a more balanced attack.

Earl had his best season this year as he completed 182 of 317 passes that gained 2,909 yards and scored 26 TD's. He led the NFL in passing and was named NFL Player of The Year and the NFL Most Valuable Player. He was also named the starting quarterback on the West All-Star team for the 1968 Pro Bowl game. Earl has compiled a fine record in his 13-year career, mostly as a back-up player. He has connected on 1,045 of 2,046 passes, a completion record of over 51 percent, that gained 15,717 yards and scored 123 touchdowns. It seems only fair that his perseverance and determination over the years be rewarded with the honors that this fine quarterback is receiving this year for the first time.

The National FUTURE FARMER



At ease.

Rest easy. Your future's in good shape. Not tied up. Not hanging. Taking Army ROTC in college will give you a certainty about your future. About your college years and the years right after college. You can plan.

You have a little more time to consider important lifetime decisions. Time put to good use. Learning how to work as part of a team.

Take command of your future...take Army ROTC

Learning how to motivate and lead others.

As an Army officer you'll get real experience in management. Responsibilities come fast as an officer. And they're important to you. When you seek civilian employment, nothing registers as well as sound management experience. The kind you get as an Army Officer. Through Army ROTC.

ARMY ROTC
P.O. Box 12703
Philadelphia, Pa. 19134

NFF 2-69

Tell me how Army ROTC can put my mind at ease while I'm in college.

Name _____ Age _____

Address _____

City _____

State _____ Zip _____



Darrell constructed this boom and uses it for pulling car and truck engines.

"I AM VERY interested in farm machinery repair and construction." This testimony by Darrell Breeden of Jefferson City, Tennessee, winner of the national FFA Foundation award for Agricultural Mechanics expresses the "inborn fondness" which he has developed through FFA.

Working with his father, Darrell helped build a milk house and a garage on their 100-acre farm. Darrell now operates the garage and repairs cars, trucks, and tractors with the aid of a monorail and chain hoist which they installed at the time of construction. Besides repairing home farm equipment, Darrell does custom repair work for neighbors and works at a local garage.

Darrell's supervised farming program includes 8 beef cattle, 6 dairy cows, and 80 acres of leased land. He also oper-

ates the 100-acre crop and hog farm in partnership with his father.



Here Darrell builds one of 28 trailers in the vocational agriculture shop.

Mechanics

AN

"Inborn Fondness"

ates the 100-acre crop and hog farm in partnership with his father.

However, the main part of Darrell's farming program involves repairing and operating machinery. He does custom earth moving with a bulldozer, backhoe, and dump truck. Through this experience Darrell has learned how to survey farm ponds, drainage ditches, building sites, sewers, and fields. Operating a corn picker, baler, combine, or plow is second nature to this mechanics winner.

Much of Darrell's mechanical intuition has been developed while working on cars and trucks. He has changed, overhauled, and rebuilt motors and transmissions. He converted a conventional truck to a dump truck, rebuilt a pickup previously destroyed by fire, and designed two tractors from parts of several automobiles. He now plans to convert a one-ton bus into a camper.

Some of Darrell's major farm equipment repairs include rebuilding the front ends on wagons, straightening frames and hard-surfacing points on plows, and overhauling the knotters on hay balers. Besides this, the farm mechanic changed a sacker combine to a bin type and reinforced frames on mowers and cultivators.

A truly good mechanic can plan as well as build new equipment. Such is the case with Darrell. In farm shop he designed and built six single-axle farm trailers. To date the young mechanic has constructed 28 farm trailers, 1 two-axle trailer, and 1 two-axle crawler float. He made a three-point hitch carry-all in vo-ag shop and since has constructed five more. For the livestock enterprise Darrell made feed bins, hog troughs, cattle chutes, and gates.

The young workman's handicraft is not limited to metal and machinery. Darrell also made several bookcases, whatnots, a grandfather clock, three

picnic tables, and other household items.

Darrell served as vice president for the Jefferson FFA and worked on the supervised farming and community service committees. He served as chairman of the supervised farming committee and was speaker at the 1968 chapter banquet.

This mechanical interest also carries over in Darrell's FFA activities. He wired several appliances in the vo-ag electrification center and installed switches and 220-volt outlets in the school shop. He maintains the tools in the shop and has served as shop foreman for two years.

Darrell affirms that the "inborn fondness" will continue to grow as he says, "Someday I would like to obtain a farm machinery dealership."

Darrell installs 220-volt outlets for power tools in the agriculture shop.



Make Welds In Awkward Places

MAKING WELDING REPAIRS on farm machinery and equipment requires working in many awkward places. Getting good penetration and well formed beads in confined quarters means added strength to repairs. Consequently, you reduce costly repetitive repairs and save time.

Welding positions are defined according to the position of the joint being welded. **Flat position** welding refers to welding on top of a surface that is approximately level. This is the most preferred position as it offers the operator comfortable working conditions.

Making a weld on the underside of a flat surface is called **overhead position** welding, and welding in a **horizontal position** means running a bead across a vertical surface, while **vertical position** welding involves carrying a bead up or down a vertical surface.

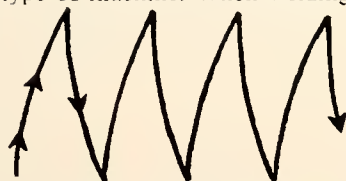
All metal being welded requires careful preparation. Removing rust, scale, and dirt makes for strong welds, good looking beads, and lowers consumption of electrodes and filler rods. Metal less than $\frac{1}{8}$ inch thick requires little or no beveling. Metal over $\frac{1}{8}$ inch thick should be beveled on one side to insure good penetration and fusion. If possible, metal thicker than $\frac{3}{8}$ inch should be V-grooved on both sides. Grooving or beveling also helps increase welding speed.

As metal gets hot it expands. As metal cools it contracts. However, one force may be stronger than the other and, therefore, cause the pieces of metal to change position. Tack welds every 6 inches on long pieces will hold metal in position. Short pieces need tacks at both ends. Place tack welds closer together on thin metals because expansion and shrinkage are more critical on these connections.

Electric Arc Welding

The operator of an arc welder determines the length of arc, current setting, welding speed, and weave pattern according to the kind and thickness of metal, type of joint, necessary strength, and the type of machine. When welding in horizontal, vertical, and overhead positions, these techniques require more critical adjustment. In addition, you must consider the welding position when selecting electrodes.

In the flat position, molten metal flows readily into



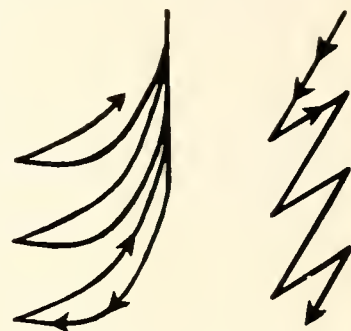
The most common electrode pattern is the crescent weave.

a joint by gravity. You can aid the flow by holding the rod perpendicular to the welding surface. The other positions require more control over the molten puddle.

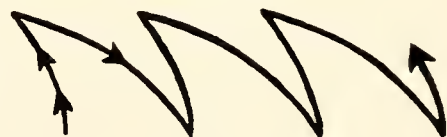
With an electric welder, vertical welds are made from the bottom up in metal thicker than $\frac{3}{16}$ inch. By holding the electrode approximately perpendicular to the welding surface and reducing current slightly from the flat position setting, you can control the puddle of molten metal. When welding thin metal downward in the vertical position, turn the electrode up at a 60 degree angle. Use a higher current setting and a faster welding speed than when welding upward.

Welding in the horizontal position with an arc welder is like flat position welding in that most right-handed workmen move the electrode from left to right. Hold the electrode horizontal to the welding surface and lean it 15 degrees in the direction of welding. Lower current and use an upward arch motion to counteract the tendency of puddle sag.

The overhead position, the most difficult with an arc welder because of gravity pull, necessitates keeping a small puddle and a very short arc. Electrodes for overhead welding are usually not over $\frac{1}{8}$ inch thick. When welding on the underside of a surface, use a straight bead—no weave—and control the welding speed. Movement too fast causes poor fusion, and too slow a speed induces molten metal to drop.



To make a wide bead when welding up, use a "J" weave. To deposit a narrow bead on thin metal use a back-and-forth weave if welding down.



This weave counteracts puddle sag when welding in the horizontal position.

Oxyacetylene Welding

Making a weld with an oxyacetylene welder requires skill in selecting torch tips, directing the flame, and carrying a
(Continued on Next Page)

6 ways to make a Lincoln Weldanpower® pay off.



This portable engine-driven Lincoln is a 3500-watt generator for tools, lights, emergency power needs. It's also a 130-amp arc welder for 1001 jobs. What more could you want for less than \$365? * Here's how you can make it pay off:

1. Emergency field repair work on your own farm.
2. Field construction work—structures, irrigation pipe, etc.
3. Contract welding for your neighbors.
4. Extra income for your Chapter.
5. Shop maintenance and construction welding during winter months.
6. Emergency power and lights—shop or field.

Mail the coupon for Bulletin on Weldanpower and for name of your nearest Lincoln distributor.

*Zone 1 list price, less accessories, less wheels; subject to change without notice.

THE LINCOLN ELECTRIC CO.

Dept. F-30
22801 St. Clair Ave.
Cleveland, Ohio 44117

Send free bulletin on Weldanpower and names of distributors.

Name _____

Address _____

City _____ RFD No. _____ State _____

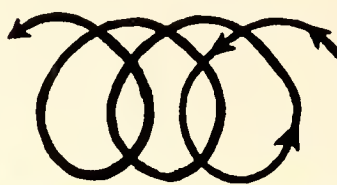
**LINCOLN®
ELECTRIC**

The World's Largest Manufacturer of Arc Welding Equipment and Supplies.

make welds...

puddle with the end of a rod. Techniques most important in making horizontal, vertical, and overhead welds include flame and pressure direction, speed of welding, and puddle control with a filler rod.

In flat position welding the torch tip points in the direction of welding at a 45 degree angle to the surface.



A circular weave can be used when gas welding in a flat, vertical, or overhead position.

The rod is 45 degrees from the surface in the opposite direction. Also the weld starts from the right end of the seam, just opposite that of the electric welder. The most common blowpipe motion is a circular movement in the direction of welding. When welding on a flat surface the speed of welding can be used solely for regulating penetration and fusion.

Since most metal joined with a gas welder is thick, the direction of welding in a vertical position is usually upward. Hold the torch tip up at a 45 degree angle and the rod down at the same angle. Move the blowpipe upward, keeping the puddle shallow. Lift the tip away from the surface slightly at regular intervals. This allows the lower part of the puddle to solidify and thus forms a ledge which holds the molten metal.

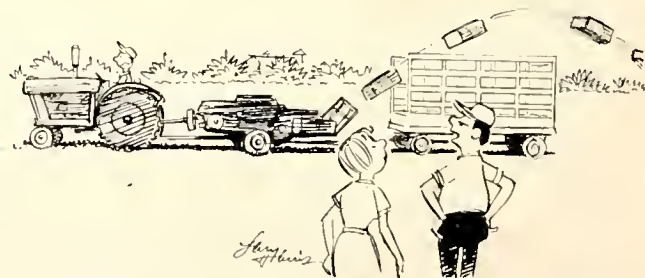
When welding metal in a horizontal plane, the torch and rod are held in the same manner as in flat position welding.



This weave permits good fusion when gas welding in a horizontal position.

However, the weave is back and forth on the edges of the seam, not circular. Heat the bottom piece longer than the top and add filler rod when the top piece barely reaches welding temperature. Guiding with the rod improves control of the puddle.

Overhead welding with an oxyacetylene welder is often easier than vertical or horizontal welding. Again use the rod to help move the puddle along and utilize a circular motion with the blowpipe. Employ less heat and keep the puddle small and shallow. The torch tip should be held approximately 90 degrees to the welding area. The rod should be 45 degrees from the metal when welding underneath a surface.



"That settles it! Johnny has got to quit 'souping up' the farm machinery!"

The National FUTURE FARMER

Tony Silva

Teaches Marketing

By Gra Allen

As a leader of a four-man lecture team, Tony Silva, a former FFA member, tours central California telling high school vocational agriculture classes about the American free enterprise system and the principles of co-operative marketing.

Tony, a 21-year-old college senior, volunteered as chairman of the group after assisting in the project last year. The lecture tour is under the direction of Tony's instructor, Mr. Jack Scott, agricultural marketing teacher at California State Polytechnic College.

"Modern farming is more than successful production," says Tony. "Modern farming is successful production plus successful marketing."

"Our task," explains Tony, "is to help high school juniors and seniors in FFA prepare for the annual Farm Co-op Quiz contest sponsored by the Agricultural Council of California." To prepare for the written tests the students and their chapter advisors devote two to three weeks of class study time to marketing and business principles. During that time the classes ask guest speakers to explain the principles of farm co-operatives to them.

Tony emphasizes, "We prepare well in advance and drill ourselves on co-operative finance, pooling, patronage refunds, and the many details of organizing and operating farmer cooperatives. After this the toughest and most exciting part is getting the students into the discussion and asking questions, and helping them to teach themselves."

Tony was a member in the Los Banos, California, FFA Chapter. His farming program included dairy, cotton, sheep, and swine. He served as reporter and president for his local chapter and held sectional, regional, and state offices.



Tony emphasizes a point while answering the questions of a vocational agriculture class at the Santa Maria High School in central California.

Tony received the State Farmer Degree in 1965 and American Farmer in 1966. He was also a member of the 1965 Los Banos FFA Chapter dairy cattle judging team that won the national finals at the National Dairy Cattle Congress in Waterloo, Iowa.

In college Tony has held a variety of major student government offices and all the while piling up an impressive academic record. Tony is also a member of two scholastic fraternities.

Tony is studying agricultural business management. Next year he takes his fifth year of study and specialization in preparation for his teaching career. He plans to teach vocational agriculture upon graduation and feels the lecture training is valuable experience.

SO EASY TO USE A KID CAN WELD



Heavy-duty voltage control and cutting ground, spot welds, solders, battery charger, overhead and vertical welding, 20-YEAR WARRANTY! LOW COST!

Please send information

Twentieth Century Mfg. Co.
9231 Penn Avenue South
Minneapolis, FF Minnesota 55431

Name

Address

City State

Zip Occupation

FOR all Official

FFA

MERCHANDISE



SEE YOUR
CHAPTER CATALOGUE

ORDER FROM
**FUTURE FARMERS
SUPPLY SERVICE**

Alexandria, Va. 22309

Owned and operated by the
Future Farmers of America



Local judging contests much like the one pictured here give team members a chance to prepare for the world series of livestock judging, the National FFA Contest at Kansas City, Missouri.

Color photo by Ralph Woodlin

Oral Reasons Added to Judging Contests

By John Lacey

ANYONE CAN place a class of livestock or poultry. But it takes a good judge to defend his placing with a set of orally delivered reasons and make the official judge believe this placing is correct.

Undoubtedly, giving oral reasons is much more demanding than simply circling one of 24 possible placings printed on a placing card. You must organize a set of statements in a logical sequence and deliver them orally in a systematic and convincing manner, using proper terms.

Oral reasons will be required in the 1969 national FFA poultry, livestock, and dairy judging contests for the first time in recent years. Each contestant will give one set of reasons in each contest. He will deliver his reasons for placing the class as he did in two minutes or less without notes except the card on which his placing was made. Contestants will have 12 minutes to place the class and at least 12 additional minutes to organize his thoughts in preparation for delivering the reasons.

The reasons class in poultry will be selected from one of the two classes of hens in production. The reasons class in dairy will be selected from one class of production age cows. In livestock the reasons class may be selected from any of the seven classes presented (beef, sheep, or swine). Reason classes in all contests will be announced at the beginning of the contests and will not be announced before that time.

Including oral reasons in the National FFA Judging Contests for 1969 was recommended by the Special Study Committee for National Contests and was approved by the National FFA Board of Directors. The Special Study Committee is made up of one state supervisor and one teacher educator

from each of the four FFA regions.

The purpose of the national contests, as described in the official contest bulletin, is "... to provide competitive activities which reflect some of the abilities needed in the successful production of livestock, dairy cattle and poultry, and other educational activities related thereto." This purpose is no different from that of judging activities in vocational agriculture classes all across the country.

A practical application of livestock judging ability is when a farmer or rancher is selecting a herd sire for use with his own livestock. He may be selecting a sire from four or forty possibilities. The animals will not be lined up before him and numbered 1, 2, 3, 4. The rancher must have trained himself to have the image of the animal he looked at three days before and a hundred miles away in the back of his mind. He then can compare that animal with the animal before him. The rancher is really giving reasons to himself and preparing to make a decision on which animal will most nearly fill his needs. If the buyer has failed to develop his skill in livestock judging, he then must rely on guesswork or the sales talk of the breeder from whom he may purchase. There has never been a successful livestock breeding program built and maintained on guesswork.

A basic reason for an FFA member to participate in livestock judging is to develop the ability to make a decision based on the best information he has. It is important, of course, that the decision made is the correct one, but it may be even more important to understand and be able to apply the principles of decision making. The ability to apply sound principles in livestock judging are no different than applying sound principles in other major decisions in

life. Choosing a career, deciding which school to attend, making a decision on which of two cars to buy—all are problems to which sound principles of judgment must be applied. The ability to make such decisions is further increased when you can defend that decision in a logical, realistic way. Giving oral reasons in livestock judging is excellent training and experience for the many more important problems of life you will face as you grow older.

One example of leadership is the ability of a person to stand on his feet and present his thoughts in a logical, realistic, and convincing manner. This ability to speak clearly and convincingly is necessary in many occupations today, and certainly the successful farmer or rancher must be able to defend his position on many issues. What better way is there to practice speaking than by giving oral reasons for a decision made in a livestock judging class?

SCORING ORAL REASONS

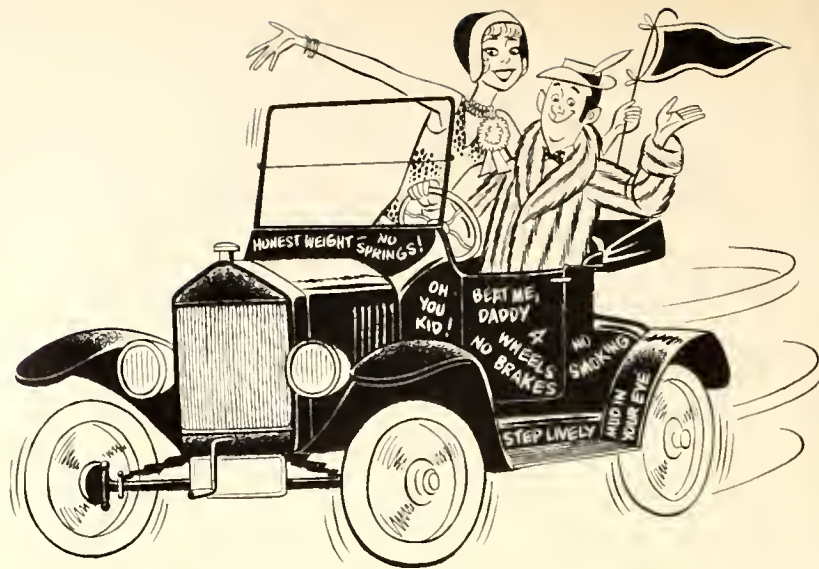
In the National FFA Judging Contests, oral reasons will be scored on the basis of 50 possible points. A wide variety of score cards for oral reasons are used over the country, but most of them are quite similar. In the National FFA Contests emphasis will be given to the logical organization of reasons, the proper use of appropriate terms, the correctness of statements made, and the appearance and manners of the contestant.

The contestant will be asked to turn in his placing card on the "reasons" class when he has made his decision, just as he does in each of the "non-reasons" classes. The cards will be arranged in logical order while the contestant prepares to deliver the reasons. The judges will call the contestant by number to deliver the reasons. The fol-

(Continued on Page 37)

YOUNG PEOPLE THEN AND NOW

By Vivian Briggs



IT'S NO SECRET, parents are people. Not so many years ago they were young as you are. They had the same emotions, the same problems, the same questions, and many of the same experiences.

Most things which are irritating and frustrating can be worked out by simply sitting down and talking them over. You may think you can't talk to your parents about these things because they will not listen. Are you certain that they will not listen, or is it possible that you have the wrong attitude? Perhaps you have not given your parents a real chance to know what is on your mind.

There is one thing which you won't want to forget—your mother and father are human individuals. After that they are your parents. Your arrival into the family did not change them from people into institutions.

Parents Are Concerned

Your parents want to be individuals, yet they are very much wrapped up in you and your affairs. In each generation this has been basic to being a parent. When you are a parent, you will follow the same pattern.

Your father and mother are more concerned for your welfare, your life, your ambitions, and your interests than they are for their own. Probably they are more concerned than you are yourself. This often makes it difficult for you and may be quite irritating. This is a time to sit down and talk it over. You don't know how your parents feel. Your parents do not understand what your feelings really are. When you sit down together and talk things over, you get them out into the open where they can be seen from all sides. Your problems never can be worked out if you keep them bottled up inside yourself and let them boil into resentment.

You will find that your parents will make reasonable adjustment to your ideas and desires in proportion to your willingness to make reasonable adjustment. Any real friendship is based on understanding and cooperation.

Sometimes your parents appear to you to be old fashioned and sort of stuffy. You wish they could "get with it" and be more modern. When you stop to think it over, it is good they do not act as though they are still teenagers.

Age Makes A Difference

Here's another secret. Age makes a difference. At age 35 or 40 things appear quite different than they do in the teens. Both generations need to recognize that fact. Sometimes adults object to the noise which normally accompanies the activities of youth. Do you suppose one reason might be that adults have heard most of those noises—in fact have made many of them in their own teen years? Their ears are tired and need rest. Noise is a necessary part of growing up. It comes in various forms. Sometimes it is in music—that joyful noise which to youth is music, but which many adults no longer appreciate.

Another form of so-called noise is in speech. Are you aware that you young people use some very unique language to describe events and people? You use expressions as new as tomorrow's newspaper. This can be a source of confusion and perhaps irritation to your parents to whom teenage language is a bit vague and difficult to follow. Have patience with them.

The fact that many young people are not interested in order and neatness may also be a cause of friction in families. It is much easier to leave things where they fall than to pick them up and put them away. As you grow older you will be too busy to take the time to look for things you have lost or misplaced so you will prefer order and neatness.

Share Family Fun

In spite of difference in interests and activities, your family can have much fun together. Everyone likes to play so there is opportunity for games and sports—both indoors and out. In play, age differences are erased and valuable family unity can be developed.

If you will look at young people, you will notice that some of them are not good mixers. On the whole they are likely to be more exclusive and non-participating than adults. It may be that they do not feel at ease or perhaps because of the natural clannishness of young people. If your family is not enjoying a friendly comradeship, it may be that you are not doing your share in promoting good relationships.

Oral Reasons

(Continued from Page 35)

lowing suggestions on what to do and not to do may be helpful as you prepare to give oral reasons in a contest.

THINGS TO DO

1. Open your remarks by identifying the class and your placing. (I placed this class of Holstein aged cows 1-2-3-4.)
2. Talk about pairs of animals using terms which compare the animals rather than describe them.
3. Emphasize the reasons you place one animal over another rather than the criticisms of the lower placed animal.
4. Stand squarely on both feet.
5. Look the judge squarely in the eye.
6. Speak clearly and distinctly.
7. Be polite but don't overdo it.
8. Be convincing but not arrogant.

THINGS NOT TO DO

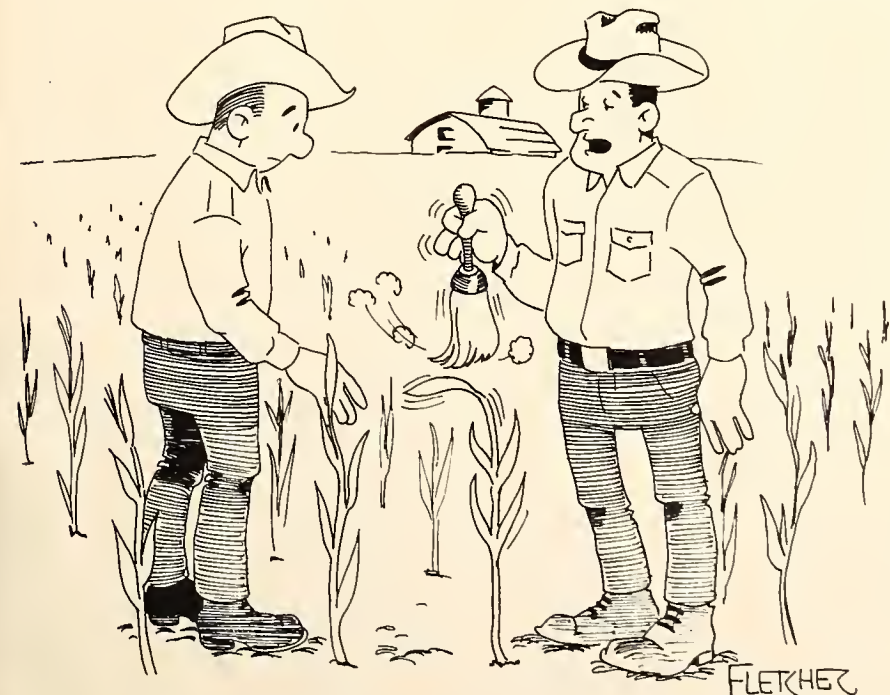
1. Do not wear a hat while delivering reasons.
2. Do not chew gum or smoke while giving reasons. (Smoking is not permitted during any part of the national contests.)
3. Do not stand on one foot and then the other or move about unnecessarily. Stand squarely on both feet.
4. Do not look down at your feet, at the ceiling, or whatever else might be attractive. As you talk to the judge, look directly at him. An occasional

glance at your placing card is appropriate.

5. Do not speak too rapidly to be clearly understood.
6. Do not speak too loud. There will be only one man listening, and he will be five or six feet from you.
7. Avoid extravagant dress, unusual hair styles, or anything else that would cause the judge to be distracted from what you say.
8. Do not use extravagant terms (such as, "Number 1 is by far the deepest, smoothest, etc."); instead use comparative descriptions (such as "Number 1 is deeper and more evenly finished than number 2").
9. Avoid repetitive statements as much as possible. Try to use different terms with different pairs of animals.
10. Do not use a canned set of reasons. These are easily identified by a judge and are the quickest way possible of saying you know nothing about the class.
11. Do not try to describe the animals by hand movements.

For some students of vocational agriculture, giving oral reasons will be a new experience, whereas for others it will be an opportunity to further develop their skill. For all contestants in the national contests, giving oral reasons will be another growth experience in preparation for the next step in life.

The author, Mr. John W. Lacey, is general superintendent of the National FFA Judging Contests. He has been a teacher of vocational agriculture, state FFA executive secretary, supervisor of vocational agriculture, and presently is a program officer for the U.S. Office of Education in Denver, Colorado.



"When I hired out as a crop duster, there wasn't anything said about an airplane."

February-March, 1969

Draw Lincoln



You May Win a \$795.00 Scholarship in Commercial Art

Draw Lincoln in pencil — but make your drawing a different size from the picture shown.

If you win the scholarship prize, you get the complete course in commercial art taught by one of America's leading home study art schools — Art Instruction Schools. You will receive personal attention from professional commercial artists in the fields of advertising art, illustrating, cartooning and painting.

Every qualified entrant will get a professional estimate of talent without cost.

Entries for current contest must be in before March 31, 1969. None can be returned. Our students and professional artists are not eligible. Clip the coupon below and mail it right away!

MAIL THIS COUPON TO ENTER CONTEST

ART INSTRUCTION SCHOOLS

Studio 9F-3541 • 500 South Fourth Street
Minneapolis, Minn. 55415

Please enter my drawing in your contest. (PLEASE PRINT)

Name _____

Occupation _____ Age _____

Address _____ Apt. _____

City _____ State _____

County _____ Zip Code _____



Accredited by the Accrediting Commission of the National Home Study Council.
Approved for Veterans Training.



A good sale crowd attends the annual consignment auctions and the bidding indicates the good community support.

MONTANA—It takes some work, but the Belgrade Chapter holds an annual Gallatin Valley consignment auction sale in the spring. This is the fourth year the Belgrade Chapter has conducted an auction of this type. This year the chapter had consignments of complete sets of farm machinery from three different farmers who were selling out or who were quitting farming for some reason or other.

Since the beginning, the sales have grossed over \$20,000. Each year it has grown larger. Last spring's auction sale grossed over \$11,000.

The chapter takes a commission of 10 percent on all items that sell up to \$299. For items selling at \$300 or more, a 6 percent commission is charged. Net proceeds to the chapter this year were more than \$800. They also charge \$10.00 entry fee on all items that are bid in before the sale.

The consignors to the sale are given complete advertising coverage on radio, newspapers, handbills, and personal contact. Radio stations support the sale with spot announcements. The county agent has three chapter members as guests on his morning radio programs and covers all aspects of the sale.

The chapter also has a complete sale bill printed in all three Gallatin Valley papers two days before the sale. Two thousand sale bills are printed and distributed in the towns in the Gallatin Valley, surrounding communities, and other chapters in the state.

They also set up a small contest among chapter members for the member getting the most sale consignments. Prizes are 15, 10, and 5 dollars.

As sale date approaches and consignments come in, members tag, record,

and line up the items in selling order.

Mr. Swainson of the Belgrade State Bank has volunteered his services as clerk for the sale, and chapter members are assigned to him as assistants. Mr. Hebel and Mr. Griswold, local auctioneers, also donate their services for the sale, and chapter members are assigned to assist them during the sale.

Terms of the sale are strictly cash, and no item can be removed from the lot until payment is made to the clerk of the sale.

Over the years the chapter has learned of some things that have to be done with perfect accuracy. They are recording entries to the sale of consignors, spelling names properly, listing complete addresses, using proper names, and recording the size and condition of equipment. Very accurate records of buyer's name, address, price bid, and item bought are also a must.

The Belgrade Chapter suggests this project to any other chapter and wishes them good luck. *(Bob Cooper, Chapter Reporter)*

NORTH DAKOTA—Rugby Chapter sold \$994 worth of "slave labor" at their recent auction. There were 78 consignments and all sold well. The vocational agricultural instructors, Mr. Curt Teigen and Mr. Don Erickson, sold by the pound. Mr. Teigen brought \$34.24, and Mr. Erickson retailed for \$35.20. Highest selling of the FFA member slaves was Jerome Schiff purchased for \$27.50.

The sale bill distributed to advertise the "slave auction" was full of facts about the consigned slaves. Here are some examples:

Lot 2. Mike Christenson. Age 17, 6'0", 150 lbs. Here is a prize specimen. He has been taught to write by hand and do simple sums. Competent operator of plantation machines.

Lot 13. Ron Blessum. 6'1", 230 lbs., age 17. Here is the answer! Strong! Strong as a horse and even a bit smarter! Can hold up a piano while owner hacks vehicle under it. A steal at any price.

Lot. 55. Kenneth Koble. 5'7", 130 lbs., age 14. So slender he has to stand up twice to make one shadow. Can take

bath in a double barreled shotgun. Would make excellent temporary slat for a picket fence.

Lot 6. (Special Offerings) Don Erickson. (Weight to be announced on day of the sale.) Born in the West, sired by humans. Raised on ground Longhorn hide and rattlesnake venom. At the age of three, picked up his family and moved east. Excellent in training animals. The dog he works with will not only speak, it will give hour-long lectures. Adapted for other work such as changing yard light bulbs, bulldogging, pitching hard-to-get-at manure, washing main street store windows, etc. Fine entertainer. Sings like a canary; has brain like one, too. *(Mark Hagel, Chapter Reporter)*

MINNESOTA—The Minnesota State Association of FFA was presented the Minnesota AAA "Service to Motoring" award at the motoring organization's annual meeting.

FFA conducted a massive campaign several years ago for the installation and use of safety belts in automobiles. Later, the group conducted a program to eliminate "blind corners" on rural highways by clearing approaches to road intersections of tall crops, weeds, trees, and shrubs; thereby improving visibility at the intersections and reducing chances for accidents. FFA also conducted a statewide educational program on the dangers of drinking and driving . . . on pedestrian and bicycle safety . . . and a special campaign in cooperation with local civic clubs and farm implement dealers to install flags on all tractors used on state highways.

Most recently the state association began a major campaign to combat the problem of the slow-moving vehicle on state roads. Specifically, they took it upon themselves to distribute and encourage the use of a special "slow-moving vehicle" emblem on all farm vehicles traveling on Minnesota roads and highways.

The award is given annually by the state AAA to an individual or organization for "outstanding contributions to better and safer motoring." This is the second time in the history of the award that an organization has been honored.

IN ACTION



State FFA executive secretary and the state officers receive traffic safety honors from Minnesota AAA officials.

the first being the presentation of the award to the Minnesota American Legion.

The award was presented to Thomas Meium, Jackson, president of Minnesota FFA and a University of Minnesota student, by Erling Berg, Duluth, president of the Minnesota AAA.

Berg paid tribute to the youthful organization of 14,000 persons for actively and consistently working for many traffic safety programs over the years.

OHIO—The River View Chapter of Warsaw holds an annual corn husking contest. Each class competes to see who

Warsaw champs, left, are freshman, Don Rich; sophomore, Jim Rich; junior, Pat Hogans; and senior, Chuck Helmick.



will represent their class in the championship.

The rules of the contest are as follows: (1) Each member husks a row of standing corn with a time limit of five minutes. (2) Each ear that he picks is worth ten points. (3) Six points are lost for each ear with more than two inches of husk left on the ear. Ten points are taken off for each ear missed. Twenty points are taken off for each ear taken from a stalk and not husked.

When winners and runner-ups from the freshman, sophomore, junior, and senior classes have been selected they compete for the chapter championship.

The most ears picked by any member has been 123 in five minutes.

The class winners are presented trophies with small ears of corn mounted on them as seen in the picture. The overall champion receives a larger trophy of the same type.

The River View Chapter uses this as a recreation activity for its members. The interest is good. Many boys practice at home long before the contest to gain more speed. Competition is getting stronger each year. (*Ray Griffith and Tom Stoll, FFA Advisors*)

KENTUCKY—There are 67 boys in Maytown High School in Langley, Kentucky. There are 12 boys on the Maytown Wildcats basketball team. Ten of those 12 are all members of the Maytown FFA Chapter.

Randy Click, chapter president and a 6-foot senior forward, is top offensive player with a 22-point average. Tom Stewart, chapter sentinel and a 6-foot senior, is playmaker and defensive guard with 14 points and 9 assists per game. Randy and Tom are co-captains of the winning Wildcats team.

Maytown has a 10-0 record and recently won two tournaments. They're also No. 1 in the region and ranked No. 16 in the state of Kentucky.

Jake Halbert, Keith Hicks, David Gibson, Rodney Hicks, Jeff Stewart, Mike Bailey, Jerry Hicks, and T. Greg Halbert are the other FFA members on the team. Billy Joe Caudill, chapter treasurer, and William Allen, a chapter member, are Wildcat team managers. (*Shirley Stewart*)

DRAW THE COWBOY



You May Win a \$795.00 Commercial Art Scholarship

Draw in pencil, any size you want (except a size that would look like tracing). If your drawing is chosen, you'll get a complete \$795.00 home study course in advertising art, illustrating, cartooning, or painting. You'll be taught by one of America's leading home study art schools. Every qualified entrant gets a professional estimate of his talent, free. Entries for current contest must be received by March 31, 1969. Amateurs only. Our students not eligible. Mail your drawing today. It could be the start of a profitable art career.

MAIL THIS COUPON TO ENTER CONTEST

ART INSTRUCTION SCHOOLS

Studio 9F-3542
500 South Fourth Street
Minneapolis, Minn. 55415

Please enter my drawing in your contest. (PLEASE PRINT)

Name _____

Occupation _____ Age _____

Address _____ Apt. _____

City _____ State _____

County _____ Zip Code _____

Accredited by the Accrediting Commission of the National Home Study Council. Approved for Veterans Training.





A bird-in-distress call lured this raccoon within bow range.

Machine Call A Predator

By Russell Tinsley

WHEN THE regular hunting season is over, winter may seem like a time of outdoor doldrums. It needn't be. There is still **something** to be hunted. I'm speaking of widespread predators like foxes, raccoons, coyotes, and bobcats.

Anyway you seek these wily critters is challenging and fun, even if only tending a trapline. But of all methods, I enjoy calling best. There is something about the way a sinister-looking predator comes rushing to a call, duped close by the promise of a quick and easy

meal, that no other hunting thrill can match.

There are a few fundamentals to consider when calling predators, as there are in any hunting endeavor, but they are rudimentary.

The obvious first step is to obtain some sort of calling device. A mouth-blown call is inexpensive and easy to master. However, an alternative is an electronic calling apparatus, either a tape recorder or phonograph. I like an electronic device because it leaves both hands free for shooting or photography.

If you've got a battery-powered recorder or phonograph, you're in business. With this electronic device you can machine call a predator within range and shoot it with either a bullet or arrow—or perhaps with a telephoto camera. Ideally, on a calm day or night the sound should carry for almost a half mile. This way you stand a reasonable chance of broadcasting the distress cries where a susceptible predator can hear them.

Some tape recorders and phonographs lack the necessary volume for calling. But this volume deficit is easily solved. Buy a speaker, a short length of wire, and a plug that will fit the auxiliary speaker jack of the machine, connect the three, attach the speaker to the recorder or phonograph, and you've greatly improved the range performance.

If you still are not satisfied, there are amplifier-speaker units designed for boosting the volume of electronic callers. Such an amplifier really helps

The author prepared a cartridge-type tape recorder for calling predators. In some instances it is necessary to attach an extra speaker to carry the sound.



when you are calling in a strong wind.

It may seem you are taking advantage of a predator by using such a machine. Ah, save those sentimental thoughts. The predator doesn't deserve them. It is one of the most cunning and sliest critters that roams the woods. A predator is alert to any danger signal, no matter how insignificant. Scant few of them throw all caution to the wind as they come a-running to a call. Far more predators outwit the callers than vice versa.

You can make your own distress cries or purchase them commercially. For calling coyotes and bobcats in the western states, for example, the best sound would be that of a squealing jackrabbit, the most native food. Foxes respond best to the cries of a cottontail rabbit. For raccoons, a bird in trouble is most effective since coons feed primarily on small creatures.

I've helped record several of these sounds, and there is nothing inhumane to it. For instance, we caught a cottontail in a live trap. When the creature was picked up it shrieked piteously, just the right sound for fooling a predator. After these sounds were recorded the rabbit was released unharmed.

But calling is more than just wandering aimlessly into the woods, switching on the calling device, and broadcasting the distress cries. There are certain things to keep in mind.

Most important, perhaps, is to look for telltale tracks and droppings along country roads and trails to ascertain whether or not predators actually are present in the area you intend to call.

Walk at least 100 yards from where you've parked your vehicle and look for a place where you can see a considerable distance—like on the edge of a clearing. Conceal yourself (camouflage-colored clothing will definitely help). Any breeze should be blowing into your face rather than at your back as human scent is one danger signal no predator

ignores. Even with these precautions it isn't unusual for a cunning predator to circle downwind and to find what is making the noise before it approaches the sound. If two persons are hunting together, it pays to position one a few yards downwind. He may be able to ambush any predator that might try to dodge the cry.

Of all animals, the gray fox and raccoon are the easiest prey for a call. The coyote and red fox are much more alert and cautious. Foxes, raccoons, or coyotes usually show up within 10 or 15 minutes. The bobcat isn't diffi-

cult to call, but few callers stay in one spot long enough to give a cat the chance to show up. When after bobcats, call at least 30 minutes because the cat is much more deliberate.

Between calls, move at least a half mile to keep from calling the same terrain over and over again. If possible, do not call one general area more than once every two or three months. Predators wise up in a hurry. One that has been fooled once by a call has all the odds in its favor. In the predator's violent world there is seldom the luxury of a second chance.

NEW FRONTIERS IN FARMING DEMAND TOTAL DISTRIBUTION

Total Distribution requires
Total transportation.

Union Pacific has the tracks
and the connections
to deliver your products
to market...

any place in the world.

**New Equipment to serve you
better. In 1969, Union Pacific
will spend over \$105 Million
just on new rolling stock alone.**



Supervisor of Agricultural Development
UNION PACIFIC RAILROAD
Omaha, Nebraska 68102

GATEWAY TO AND FROM YOUR WORLD MARKETS



"Don't tell me you can't tell the
difference between a zebra and this
wild raging tiger!"

National Officers On Goodwill Tour

THE NATIONAL FFA officers began the annual Goodwill Tour on January 26 in Richmond, Virginia. Following stops included 16 other major cities in 12 different states. The officers will visit friends of the FFA in business, in-

dustry, and organizations in Philadelphia, New York, St. Louis, Cleveland, Akron, Detroit, Minneapolis, Milwaukee, Chicago, Indianapolis, Kansas City, Missouri; Wilmington, Delaware; Princeton, New Jersey; and Racine, Wisconsin. The tour will end in Kansas City, Missouri, on March 1.

The Goodwill Tour follows the meeting of the national officers and the National Board of Directors held January 11-25 in Washington, D.C. Business items facing the national organization were discussed. Orientation sessions at the National Center on *The National FUTURE FARMER* Magazine, Official FFA Calendar, and Future Farmers Supply Service preceded the meeting.

After the Goodwill Tour national officers will attend state conventions, national leadership conferences, and other FFA functions.

The National Goodwill Tour program began in 1947. After skipping 1948, the tours became an annual affair in 1949. The tours have done much to show industry the kind of young leaders being developed through the FFA and serve as good public relations for FFA.

Several state and some local chapters have also held goodwill tours of their own at the same time the national officers are on tour. It is a good time to thank your supporters of the FFA, especially during National FFA WEEK, February 15-22.

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION (Act of October 23, 1962: Section 4369, Title 39, United States Code)

1. Date of filing: September 26, 1968.
2. Title of publication: The National FUTURE FARMER.
3. Frequency of issue: Bimonthly.
4. Location of known office of publication: 6630 Mt. Vernon Highway, Fairfax County, Alexandria, Virginia 22309.
5. Location of the headquarters or general business offices of the publishers: c/o U.S. Office of Education, Washington, D.C. 20202.
6. Names and addresses of publisher, editor, and managing editor: Publisher, Future Farmers of America, c/o U.S. Office of Education, Washington, D.C. 20202; Editor, Wilson W. Carnes, Alexandria, Virginia 22309; Managing Editor, none.
7. Owner: Future Farmers of America (a nonprofit corporation), c/o U.S. Office of Education, Washington, D.C. 20202.
8. None.
9. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during preceding 12 months.

10. Extent and nature of circulation:	Average No. Copies Each Issue During Last 12 Mo.	Single Issue Nearest To Filing Date
A. Total number copies printed	471,063	470,000
B. Paid circulation		
1. Sales through dealers and carriers, street vendors, and counter sales	None	None
2. Mail subscriptions	462,631	463,552
C. Total paid circulation	462,631	463,552
D. Free distribution by mail, carrier, or other means	3,422	3,756
E. Total distribution	466,053	467,307
F. Office use, left-over, unaccounted, spoiled after printing	6,010	2,693
G. Total	471,063	470,000

I certify that the statements made by me above are correct and complete.

V. STANLEY ALLEN, Business Manager



FREE for YOU

THESE materials are free! You can get a single copy of any or all of them by mailing the coupon below. Just circle the items you want and send your complete address.

72—Bloat Guard—Pasture season will soon arrive and with it the bloat problem. What is legume bloat? What causes legume bloat? How can bloat be prevented? These are just some of the questions this 12-page booklet answers for you. The development, use, and economic benefits of 'Bloat Guard' are also described in this two-color booklet. (Smith Kline & French Laboratories)

73—Reynolds Irrigation Digest—The articles in this booklet range from the maintenance of irrigation equipment to frost prevention with sprinkler systems. In addition, this 52-page booklet is jammed with information all irrigation farmers can use, no matter what crops you grow. Care of grapes, tomatoes, strawberries, potatoes, and field crops all receive adequate attention. (Reynolds Metals Company)

74—Trading In Tomorrows—This 24-page leaflet explains the history, functions, and benefits of futures trading. Other helpful information found in this detailed leaflet includes trading examples, a list of commodities traded, several definitions, and membership regulations. You also will find several helpful hints concerning hedging. (Chicago Mercantile Exchange)

75—Price—Written especially for FFA members, this 48-page manual tells how grain prices are determined and why grading is necessary. Charts are used to explain the effects of shrinkage, moisture, and storage of grain. The booklet further provides a lengthy discussion on what you should know about the futures market and how you can use it as a management tool. (Chicago Board of Trade)

72 73 74 75

Send to:

The National FUTURE FARMER
Alexandria, Virginia 22306

Name.....

Route.....Box No.....

City.....

State.....Zip.....

Offer not good after
April 30, 1969



Year after year, Sherman House is host to many of the most distinguished companies and organizations in America. And not just because we have the facilities. Sure we have meeting and banquet rooms to handle groups up to 3000, exhibit halls, seminar rooms, and all the rest. But what makes 'em come back for more are the extras. The excitement of great restaurants, bars, and night club... all right in the hotel. Or stepping out on the street into the glitter of dynamic downtown Chicago. If you want your meeting to be right in the middle of it all this is the only place!

NEW AT SHERMAN HOUSE! New executive suites, exhibit halls and meeting rooms.

Send for complete convention details

SHERMAN HOUSE

IN CHICAGO AT CLARK, RANDOLPH, LA SALLE
Phone: 312/FR 2-2100 TWX: 312-222-0631
Daniel Amico, Vice Pres., Sales Manager

something new



This electric belt sander by The Black & Decker Mfg. Co., Towson, Maryland 21204 will sand 1,200 feet per minute without gouging, tilting, or rocking and keeps the work area dust free.



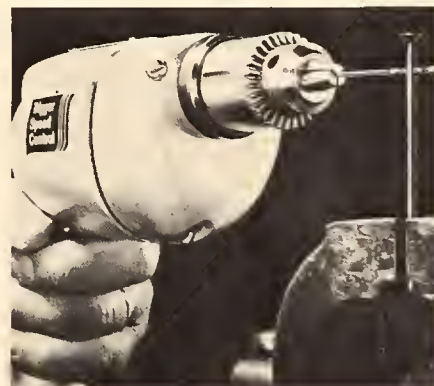
Features on this 260-amp welder by Twentieth Century Mfg. Co., Minneapolis, Minnesota 55431, include a dial voltage control and 350-amp cutting ground.



44117, permits faster welding speeds, shorter arcs, and works under DC and AC operation.



An all-position electrode manufactured in six sizes by the Lincoln Electric Co., Cleveland, Ohio



A trigger switch on this electric drill by Skil Corporation, Chicago, Illinois 60630, lets the operator control the drill speed and reverse the drill. The switch assures longer tool life.



Smith's Welding Equipment, Minneapolis, Minnesota 55414, introduced a new 10-piece welding outfit. The kit contains torch body, three welding tips, regulators, and cutting assembly.

February-March, 1969

EARN \$60 to \$100.5

for your ORGANIZATION

SACHET BOUQUET

puts fragrance in the air everywhere...
in clothes closet, lingerie drawer, linen closet



SEND FOR FREE SAMPLE
To Show Your Group

GUARANTEED PROFITS!

Get full details on this proven, no-risk, no-money-in-advance plan. Many groups earn over \$1500 in 2 short weeks!

6 Shipping Centers: Cal., Mo., Pa., Mich., Tenn., Mass.

• Send No Money! • Mail Coupon Today!

To: Abigail Martin
1113 Washington, Dept. 31
St. Louis, Mo. 63101

Send FREE SACHET BOUQUET. Retail for \$1.25

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Organization: _____

Phone: _____ No. of Members: _____

(Free Sachet Bouquet subject to our approval and verification of information submitted.) Offer available to non-profit groups only.

SELLS FASTER BECAUSE IT'S DIFFERENT!

Earn **\$330.00** or more
for your club or church
IN JUST ONE WEEK

No risk • No investment • No shipping cost • No call-backs to make deliveries

Out-of-the-ordinary Golden Praying Hands Pen - a tested, proved money-maker - a fine quality, guaranteed writing instrument.

Completely packaged fund-raising plan.

Write for information, FREE sample.

No salesman will call.

COLLINGWOOD FUND-RAISING

44 Warren Street • Dept. 56
Providence • Rhode Island 02901

Name _____

Organization _____ Number _____

Sponsoring Group _____
(SUCH AS YMCA, CHURCH OR OTHER)

Your Title _____ Age _____
(IF UNDER 21)

Address _____

City _____

State _____ Zip _____

☐ Send me one sample pen (free)

☐ Send me trial kit ☐ Send me _____ kits
(QUANTITY)

THE CHAPTER SCOOP

news, notes, and nonsense
from everywhere

by Jack Pitzer

Platte Valley Chapter in Colorado holding 3rd annual registered hog sale. Expecting to sell 35 bred gilts, 5 boars, and 5 open gilts.

N-N-N

"Maryland's Frederick Douglass FFA won first place for our float at homecoming." That's all they wrote.

N-N-N

Mt. Vernon, Ohio, FFA Chapter invited game warden, Mr. Gary Scott, to speak on gun safety and hunting laws.

N-N-N

Word from Presque Isle, Maine, reporter Gary Drake: Businessmen contributed to send FFA's to the Eastern States Exhibition and National FFA Convention.

N-N-N

Lyman Hall, Connecticut, FFA Chapter's fair exhibit had three parts: animal science, wildlife management and forestry, landscaping and flower arranging.

N-N-N

Officers of Ezel, Kentucky, FFA spoke to grades 1-12 on "Opportunities in Agriculture and FFA."

N-N-N

Dean Pike, Ainsworth, Nebraska, was elected second vice president of American Junior Hereford Association.

N-N-N

Hoye Thomas, Kelvin Dison, and David Hood took 1st place honors for Saline, Louisiana, FFA in judging contest at breed field day.

N-N-N

Algoma, Mississippi, FFA won \$50 prize in county clean-up campaign.

N-N-N



The Soroco Chapter of Oak Creek, Colorado, has a registered Colorado brand for their livestock. It is letters FFA. Hope they don't try to use it any place else!

N-N-N

Ever notice all the special messages in local papers by business firms extending Holiday Greetings? Why not the same thing from an FFA chapter to its community?

A Greenhand Degree initiation and ceremony for 21 new members of Clinton, Tennessee, Chapter. Event held in shop of new school!

N-N-N

Mike Ziegler, reporter of Mohawk, Ohio, FFA tells us that 1,836 sparrows, 3 weasels, and 89 possums were collected in chapter's pest hunt.

N-N-N

Miss Beverly Lucas, Crab Orchard, Kentucky, FFA Chapter's entry in county Burley tobacco beauty contest.

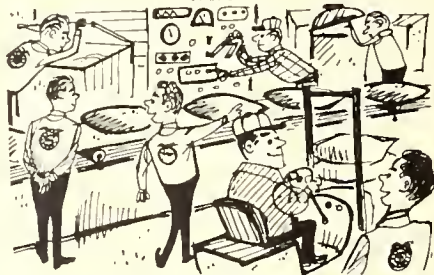
N-N-N

Four Denison, Iowa, members went to College of Agriculture career day.

N-N-N

U. S. Congressman Tom Foley spoke at the Twisp, Washington, FFA-FHA banquet.

N-N-N



Sophomores of Tri-Valley, Ohio, Chapter toured local fertilizer plant.

N-N-N

Powhattan, Kansas, Chapter sent 8 contestants to district public speaking contest.

N-N-N

Chino, California, FFA had a float in local Christmas parade.

N-N-N

Chapter members at Columbus, Indiana, collected clothing for county children's home for Christmas.

N-N-N

Traders extraordinaire! Issaquah, Washington, FFA sold their used tractor for \$900. Hope to get a new cultivator to go with their new tractor.

N-N-N

Bob Wanner, Pequea Valley FFA in Pennsylvania, won Gold Emblem in the national livestock showmanship contest at the National FFA Convention.

N-N-N

Salute to Roy Patterson by members of his chapter. Livonia, New York, won blue ribbons for their safety exhibit. They say Roy's cartoons helped win.

N-N-N

David Fuller, Scott Miller, and Pat Adelman of Gervais, Oregon, FFA got to test drive a "Hydrostatic" drive tractor at county fair.

Central High FFA of Marlow, Oklahoma, raffled 1/2 beef and made \$750. Top salesmen were Carol Steel, Billy Pierce, and Billy Smith. Chapter plans to spend money for a stock trailer.

N-N-N



Council Grove, Kansas, Chapter sponsored sweetheart competition for their district. Contestants were scored on milking a cow and driving a nail. Plus usual beauty, talent, personality, and poise.

N-N-N

How about sending in stories with some details and photos for possible use in other parts of your Magazine?

N-N-N

Starting to see some fantastic sales figures from slave auctions. Chapter sweetheart of Rapid City, South Dakota, brought \$130.

N-N-N

Clinton Mortenson, Animas, New Mexico, member sold his state fair grand champion barrow for \$3,348.25.

N-N-N

Monroe City, Missouri, FFA honors two members in livestock production; one with high weaning weight in swine, and one with high weaning weight in cattle.

N-N-N

"The meeting was adjourned and we enjoyed a game of basketball afterwards in the gym." From report of Viborg, South Dakota, FFA.

N-N-N

Have received word of several chapters who invited president and advisor of a nearby chapter to attend their banquet.

N-N-N

New Rockford, North Dakota, Chapter secured three sponsors for 1969 FFA Calendars.

N-N-N

Advisors of Flathead, Montana, showed pictures of what past chapter members have accomplished.

N-N-N

Keep those cards and letters coming. Always better to have too much news, too many notes, and plenty of nonsense.

Reconsidering A Motion

By Dr. Jarrell Gray

WOMEN ARE supposed to have the prerogative of changing their minds. In chapter meetings FFA members have such a prerogative, too, if they exercise proper parliamentary procedure.

Reconsidering a vote is one way FFA members may change their minds. This parliamentary ability is for the purpose of permitting the chapter to reconsider a vote previously taken on a motion and to again consider the question.

Who, then, may offer a motion to reconsider? This can be done only by a member who voted on the prevailing side, or winning side, unless the vote was by ballot. A vote is usually taken by ballot for the purpose of assuring secrecy; therefore, a member need not reveal his vote in offering a motion to reconsider when the vote is taken by ballot.

Sometimes a member will change his vote to the prevailing side if he sees his side is losing so he will be in a position to offer a motion to reconsider.

The purpose of requiring one to be on the prevailing side is to assure that at least one member who had a share in the decision has changed his mind.

When may the motion to reconsider be made? This motion must be offered on the day the vote was taken on the motion to be reconsidered or on the next calendar day. A vote taken at a weekly or monthly meeting, as is the situation in most FFA meetings, cannot be reconsidered at the next weekly or monthly meeting. Such a rule lends stability to actions of the chapter and allows it to proceed with work which has been authorized by a vote of the FFA members.

The motion to reconsider requires a second and is unamendable. It is, however, debatable if the question to be reconsidered is debatable. A majority vote is required.

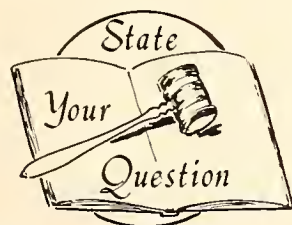
When a vote is reconsidered, the original motion is before the chapter as though it had not been voted upon.

In an FFA meeting, the following situation might arise. After a main motion had been voted upon, a member who voted on the prevailing side might decide he wanted to reconsider the motion. He would obtain the floor, and may want to give his reasons for wanting to reconsider the motion, then state, "I move to reconsider the vote on the motion that . . . I voted on the prevailing side."

After this is seconded, the president would then state, "It has been moved and seconded that we reconsider the vote on the question that . . . This motion is debatable (if the motion is debatable), unamendable, and requires a majority vote. It is now open for discussion."

Following the discussion, if any, the president would then state, "Are you ready for the question? Those supporting the motion to reconsider the vote on the question that . . . say aye. Those opposed say no. The ayes (noes) have it, and the motion will (will not) be reconsidered. (If carried) The motion now before the chapter is . . ." (The motion is disposed of in the usual manner.)

Yes, there are times when a group may want to change its mind. The parliamentary ability of reconsidering provides a means of doing this that is effective and time-saving if members know when and how to use it.



China Grove, North Carolina

Q. When is the motion to adjourn in order, or not in order?

Richard C. Hampton, Sr.

A. In FFA chapters, the motion to adjourn (when unqualified) is always a privileged motion. As such, it takes precedence of all others, except the privileged motion to fix the time of adjourning. A motion to adjourn cannot be made while the chapter is voting or verifying the vote unless the vote is by ballot.

Do you have a question on parliamentary procedure? If so, you can get a direct reply from Dr. Gray, and your question may be selected for use in this column.

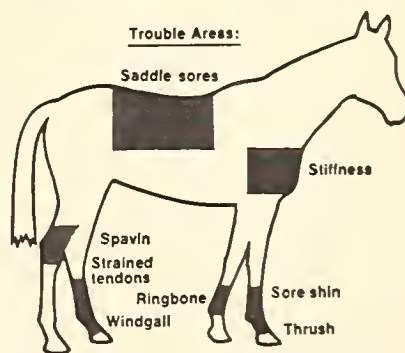
Answers are based upon "Parliamentary Guide for FFA" by Dr. Jarrell D. Gray. For direct replies, send your question to Parliamentary Procedure, The National FUTURE FARMER, Box 15130, Alexandria, Virginia 22309. Enclose a self-addressed, stamped envelope.

THERE'S A CYCLONE FOR ALMOST EVERY SPREADING & SEEDING JOB!

It's results that count! For best results, use Cyclone PTO Models for spreading pelleted fertilizers, granular pesticides, seed (including brome), use Cyclone Electric Models, with adjustable spread width, for granular pesticides, seed, etc. Comprehensive rate chart included. 2 point hitch/3 point mounting bracket available for all models. See your Cyclone Dealer or Distributor—or write for information. Insist on Cyclone Equipment! THE CYCLONE SEEDER CO., INC. Dept. 96-2, Urbana, Indiana 46990



At the first sign of trouble reach for ABSORBINE

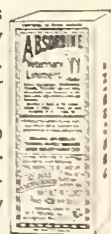


For over 70 years, Absorbine has proved effective in relief of bog spavin, windgall, ringbone, sores and bruises.

Absorbine can be applied right on strained tendons and other trouble areas to reduce lameness and swelling. It instantly starts drawing out soreness. Never causes loss of hair or blistering, either.

There's no better way to keep horses in top condition. Buy Absorbine at drug-gists or wherever veterinary products are sold.

W. F. Young, Inc., Springfield, Mass.
Available in Canada



Raise Registered LIVESTOCK

SUFFOLK SHEEP

Produce big, rugged, fast gaining lambs. Suffolks' moderate sized, wool-free head assures easy lambing. Write today for breeder's list and complete information to start your Suffolk flock.

NATIONAL SUFFOLK SHEEP ASSOCIATION
Box 324 F, Calumbia, Mo. 65201



HAMPSHIRE...

Top Quality Carcasses
Early Maturing

Write for free list of Breeders

The American Hampshire Sheep Assn.
Stuart, Iowa

CHEVIOTS have what it takes:

- To survive lambing hazards;
- To develop desirable carcass weights on milk and grass alone;
- To impart these qualities to less fortunate breeds through crossing.

Write today for interesting free booklet.
American Cheviot Sheep Society
Box 18, Lafayette Hill, Pa. 19444



More Profits with Market Topping HAMPSHIRE

- ✓ Good Mothers
- ✓ Thrifty
- ✓ Economical
- ✓ More Red Meat

Raise Hampshires. Get more pounds of quality red meat per litter. Follow the leadership of the leading commercial hog producers who use Hampshires more than any other breed. Hampshires wrap up to a high degree the essentials for profitable meat hog production. They are a must to any cross breeding program. Write for more information about this breed and where to buy them.

SPECIAL
Send \$2.00 for one-year subscription to Hampshire Herdsman, breed magazine. Keep informed on meat hog production, selection, and improvement

HAMPSHIRE SWINE REGISTRY

1143 Main St., Peoria, Ill. 61606

How to make big money

RAISE HAMSTERS

AND OTHER SMALL ANIMALS

\$500-\$800 MONTHLY. Raise small laboratory-breeding stock for us. We supply equipment, breeders, instructions. Illinois Research Farms, Dept. FN-2, 2711 Justen, McHenry, Illinois 60050.



SEND FOR THIS FREE!

Make money. Know how to break and train horses and ponies. Send name and zip-code for this free booklet with special offer of a course in Animal Breeding. If you are interested in Gaiting and Riding the saddle horse check (). Do it today!

Write to
BEERY School of HORSEMANSHIP
2022, Pleasant Hill, Ohio 45359.

MINI-BIKE PLANS!

BUILD COMPLETE FRAME FOR LESS THAN \$10!

Exciting new plans reveal step-by-step details with drawings how to build your own mini-bike! Ideal for school, paper routes errands and etc.



SEND \$2!
ONLY

EASY
TO BUILD

RUSH
YOUR
ORDER!

FREE—FREE—FREE

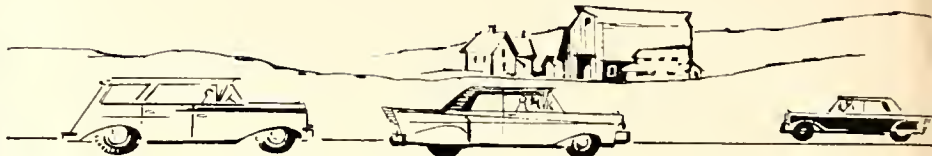
Learn how you can buy new engines \$30 up, wheels \$10 up, with FREE confidential list and coupons when you send \$2 for your plans.

RUSH information about plans. (I enclose 25¢) ☐
HURRY and RUSH my Mini-Bike Plans and Confidential List. (I enclose \$2 cash, check or M.O.) ☐
Print name & address.
Money Back Guarantee.
PLANS

P.O. Box 517, Omaha, Neb. 68102

GUIDES

TO



EVERY DAY you can read about drivers who stepped on the accelerator instead of the brake, plowing ahead into pedestrians, playing children, or another car. Or drivers who stepped on the brake, but kept on going. Or drivers who lost control of their cars. They didn't *mean* to do it, but it happened.

The driver gets hurt, his family or friends get hurt, the other fellow gets hurt. And someone has to pay. So isn't it worth a little time to learn how to avoid all this?

According to the National Safety Council, more than *fifty-three thousand* persons were killed on the highways in the United States in 1967. And almost *two million* more suffered injuries on the highways. They contend that four out of five of the deaths could have been avoided. The most

common causes were speeding, reckless driving, violation of rules, and failure to yield right-of-way—all human failure.

You can't be a safe driver unless you have a safe car. This means that your car should have passed your state's auto inspection and have safe brakes, steering gear, lights, signals, and tires. If your state doesn't have a compulsory inspection law, take your car to any dealer or garage. Many offer inspections free as a public service.

Pre-driving check: Each time you use your car, even on a trip to school, check these important points before you start out:

1. Walk around the car and inspect the tires visually.
2. Turn on the lights and walk around the car again.
3. Inside the car, test the foot brake.



"You shouldn't have said, 'I warn you officer, I'm captain of the debating team.'"

SAFE DRIVING

By Jerome M. Cowle

If it goes all the way to the floor, it needs checking.

4. Fasten your seatbelt *before* you turn on the ignition and keep it fastened whenever your car is in motion.

5. Start the engine and check the instruments. Is the battery discharging? Enough gas? Later on, check oil pressure and temperature. *Never* start the car with the garage doors closed. Never keep the engine running inside the garage. Always leave one car window partially open, even in winter.

You're rolling: Okay, your car passed the flight check, and you're fastened in. Now you can back out. But wait! Is your little brother playing in the driveway? Better look first. Then back out slowly, watching for cars, bicycles, and people.

Use *double signals*, especially in the daytime when your brake lights and turn signals aren't easily seen. It's much better to be doubly sure when you make a turn by putting on your turn signal and also using a hand signal. If the driver behind you is a daydreamer, it might wake him up.

Don't play "rushin' roulette"! About two out of every five auto deaths are caused by exceeding the speed limit. Can you imagine deliberately driving your car off the roof of a ten-story building and riding it to the street below? Yet, if you crash into another car while traveling sixty miles an hour, the results will be the same. Always obey the posted speed limits. But don't think these signs always indicate *safe* speeds. You alone must decide when the safe speed is *less* than the posted speed, depending on conditions.

Defensive driving: A test driver for an automobile manufacturer once told me, "Always drive as if you expected

the other guy to collide with you." This describes defensive driving, otherwise known as anticipatory driving. Now this doesn't mean to drive scared to death. It means that you think ahead what you would do *if* the fellow in the other lane swerves toward you, or *if* the neighbor backs his tractor onto the highway right in front of your car, or *if* a child suddenly chases a ball into the street.

What about hitchhikers? Make it a rule *never* to pick up strangers. If it's someone you know well enough to be sure he won't hit you over the head, pick him up. Otherwise, ask yourself, "What do I have to gain?" The answer is "Not a thing, but plenty to lose!"

Roadside repairs: If you have car trouble, pull all the way off onto the shoulder. Get out on the passenger's side. Raise your hood. If you stall in traffic and can't get off the road, raising your hood will prevent collisions (and oftentimes get you a push to a service station).

Turnpike technique: Superhighways demand a new technique of driving. There are few, if any, billboards to read. Roads are straighter, wider, easier to drive, and *appear* to require less concentration. That's the danger! Highway hypnosis sets in. The next thing you know, you've been lulled to sleep. The only precaution is complete concentration and frequent rest stops. Don't sit in the same position. Talk. Keep your eyes moving, vary speed. Stop to stretch and relax. Highway hypnosis is sort of a trance, and the way to avoid it is plenty of fidgeting and squirming. If you're alone, pull off the road every now and then. Take a nap if you must. If you're driving with

(Continued on Page 49)

BUY FACTORY DIRECT!

LARK BIRD

 Speeds over 25 mph

MINI-BIKE!
129⁹⁵
\$10 Down
\$8 Mo.
 NEW 3 1/2 hp
 4 cycle engine

TIME PAYMENT

For about 30c a day, you can pay-as-you-ride. You must be 21 or have parents sign.

All new powerful 3 1/2 hp 4 cycle engine (one of the biggest in the mini-bike field) sparks this little charger with breath-taking performance!

Deluxe model with lights, fenders, mirror only \$149.95

BIRD engineering, Box 427, Dept. FF-2 Omaha, Neb. 68101

Guaranteed 10 Years!

\$1.98



The knife for hunting, fishing and all around use. Mirror polished imported stainless steel blade honed to a razor's edge. Rugged. Opens with flick of finger. Locks into position. Blade will not close when in use. Press button on handle to close. Safety finger guard. Sure-grip handle. Balanced for target throwing. IF BROKEN WITHIN 10 YEARS WE WILL REPLACE AT NO CHARGE! Use 30 days. Money back if not pleased. Only \$1.98 plus \$2.27 postage and handling. ORDER NOW! Midwest Knife Co., 840 S. Western Ave., Dept. RC-134 Chicago, Ill. 60620. Established 1796

Make \$71 to \$1050
Promote Your
School - Town - Group



License Plates Designed for You

It works! Over 1500 groups throughout the country used this fund raiser successfully in the last 12 months. Every car owner in your area is a prospect.

YOUR WORDING & EMBLEM embossed on heavy gauge steel in choice of 7 brilliant baked enamel colors. Fits any car. Official 6 x 12" size or 4 x 12" with special metal fastener.

100%-300% PROFIT! For example: order 100 Plates @ 79c each, sell at \$1.50, earn \$71. Order 1000 @ 45c each, sell at \$1.50, earn \$1050.

NOTHING DOWN! We bill in 30-45 days after shipment, allowing you ample time to sell.

Write today for details on this proved way to raise money. We'll send **FREE** sample plate, factory price list and full-color illustrated folder.

QUALITY PRODUCTS, INC. P. O. Box 554-FA
 Columbus, Miss.
 Please send information (no obligation)

NAME _____
 Street Address _____
 City _____ State _____



Quite a crowd gathered 'round to watch and listen during the rooster crowing contest sponsored by Minnesota State FFA.



Some motto—"FFA is for the Birds." But it won first place at the Minnesota State Fair exhibit contest for Wadena FFA.

Garry Glass, of Jessamine County, Kentucky, showed how easy it is to operate a fork lift handling frames full of tobacco.



Dennis Howard, Mulhall, Oklahoma, with his grand champion lamb named Modern at the International.

Here's just one of the outstanding ways FFA was recognized during National FFA WEEK in Florida.



GUIDES TO SAFE DRIVING

(Continued from Page 47)

others, change drivers every hour or so. Keep the radio on a station with a program you don't like. It'll keep you awake and irritated.

Don't crowd the car ahead, and be wary of the one behind. Be careful, too, of "velocitytization" (the loss of your sense of speed when on a super-highway). It may cause you to exit the highway going too fast. Always check your speedometer.

Driving under difficult conditions: If you must drive in snow or ice, be sure that your defroster is operating, that your windshield wipers have good blades, that you either have snow tires or chains. If you skid, turn your steering wheel *toward* the skid. If your rear end swings to the left, turn your wheel slowly to the left. But keep your foot off the brake! This will straighten your car. Then ease on the brake and come to a stop. If your rear end swings to the right, put your steering wheel to the right. It's that simple.

If you must change a tire on a snowy road, be sure the jack is on firm ground so it won't slip when your car is in the air.

Rainstorms require similar precautions. And you need good tire treads. Driving with "baldies" in wet weather is really asking for it!

Night doubles traffic troubles! Al-

though less people drive at night, over half of all traffic deaths occur during the hours of darkness. So be extra cautious at night.

10 VITAL DO'S AND DON'TS

1. *Don't be a showboater.* That feeling of power behind the wheel could quickly be canceled by a serious accident.

2. *Don't overload your car.* Too many riders could mean not enough concentration or visibility, too much horseplay.

3. *Don't tailgate the car ahead.* Keep at least one car length behind for each 10 mph. Triple your distance in rain, snow, and darkness.

4. *Always warn passengers before you shut car doors.*

5. *Always know what gear you're in.* After backing up to clear a crosswalk, put it back into forward drive to avoid mistakes.

7. *Never drive with an object extending out the side of your car.* And fasten a bright rag to anything protruding out the rear!

7. *Use your headlights in snow, rain, fog, and twilight.*

8. *Never drive when you're emotionally upset.*

9. *Never drive an uninsured car.* It's the quickest way to mortgage your future, or that of your parents.

10. *When in doubt, slow down and play it safe!*



"Whew, finally got those wasps, sir!"



TEMPLE UNIVERSITY AMBLER CAMPUS

Department of Horticulture

*Associate in Science
Degrees Offered in
Landscape Design
and Horticulture*

*Write for Catalog A:
Department of Horticulture
Temple University Ambler Campus
Ambler, Pennsylvania 19002*

Be An Auctioneer

*Two week term and home study.
Nationally recognized. G.I. approved.
FREE CATALOG!*

Missouri Auction School
424-6 Nichols Road, Kansas City, Mo. 64112

LIKE SWEET ONIONS?

NEW BLUE RIBBON ASSORTMENT 600 ASSORTED SWEET ONION PLANTS with free planting guide \$3.60 postpaid fresh from Texas Onion Plant Company, "home of the sweet onion," Farmersville, Texas 75031.

Shelton Towers HOTEL

*Exciting East Side Hotel
Midway between United
Nations & Rockefeller
Center. 1200 fine
air-conditioned rooms
with TV. Superb food.
Swimming Pool, Solarium.*

*Singles from \$10
Doubles from \$14*

*Lexington Ave., 48-49th Sts.
New York City 10017
TEL: (212) Plaza 5-4000
— or your travel agent —*

FREE SWIMMING in N.Y.C. Change of Address

If you are moving, please let us know promptly so you will continue to receive your magazine without interruption. Mail your new address along with the address label from your last issue.

To Subscribe

Mail your name and address with your payment. Enclose \$2.00 for three years; 75 cents for one year. If you are renewing your subscription, also send an address label from your last magazine.

Mail To: The National FUTURE FARMER
Box 15130
Alexandria, Virginia 22309

HAVE YOU HEARD THE ONE ABOUT

A salesman parked his small foreign sports car outside the village store. When he came out of the store, a farmer was looking over the car. "Well, what do you think of it?" asked the salesman.

"Picked it before it was ripe didn't you?" commented the farmer.

Larry Richmond
Quinwood, West Virginia

Ag. instructor: "How is your breeding experiment coming along, George?"

George: "Well sir, I crossed a boa constrictor with a Volkswagen."

Instructor: "What did you get?"
George: "I don't know, but it sure is hard to find parts for it."

Donald Gage
Nevada, Texas

Minnesota farmer: "It gets so cold here in the winter that we have to put heaters under the cows to milk them."

Unimpressed Texas farmer: "That's nothing. It gets so hot back home that we have to feed the hens ice so they won't lay hard-boiled eggs."

Thomas LaMance
Auburn, California

The agriculture school dean was interviewing a freshman and asked, "Why have you chosen this career?"

"I dream of making a million dollars in farming like my father," replied the freshman.

The dean was impressed. "Your father made a million in farming?"

"No," replied the student, "but he has always dreamed of it!"

Nick Schortgen
Fort Wayne, Indiana

One nice thing about sports cars— if you flood the carburetor you can just put the car over your shoulder and burp it!

William Renno
Stillwater, Pennsylvania

A preacher on his way to visit a native jungle tribe noticed that he was being chased by a lion. When he realized he couldn't outrun the lion, he fell to his knees and began to pray. After a few moments he looked up and saw the lion was praying too. "I didn't know lions prayed," said the preacher.

"You're praying," replied the lion, "I'm saying grace."

James Crowder
Clermont, Florida



"It probably looks like I'm tracking in mud, but actually it's manure."

City visitor: "Is the water on this farm healthy?"

Farmer: "Sure. We use only well water."

Jim Hill
Stanberry, Missouri

Two gamblers were playing poker, when one suddenly yelled, "Four aces! What have you got?"

"Wait a minute," replied the second calmly. "I've got one ace and a 45."

Bill Turner
Vienna, Georgia



Teacher: "Dan, where is your pencil?"

Dan: "I ain't got one."

Teacher: "Dan, I don't have a pencil. She doesn't have a pencil. We don't have any pencils."

Dan: "What happened to all the pencils?"

Bill Keister
Carey, Ohio

Restaurant owner to waitress: "Each week you break more dishes than your salary amounts to. What do you think I ought to do about that?"

Waitress (shrugging): "I don't know unless you raise my salary."

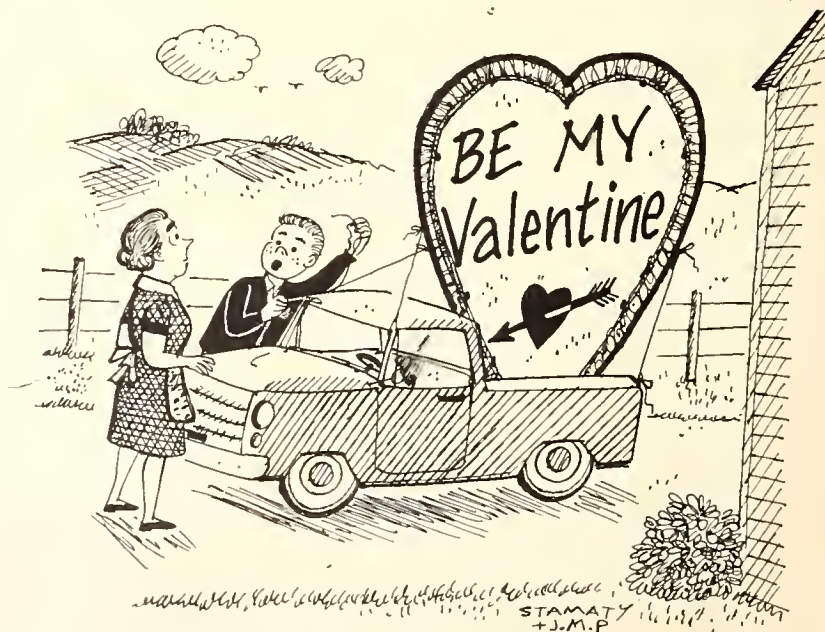
Mike Black
Oxford, Mississippi

One boy said to another, "I took my girl friend to an amusement park where we went through the tunnel of love."

"What happened?" asked his friend. "I don't know," said the boy. "We couldn't get seats together!"

Wilfred Beaver
St. Anne, Illinois

Charlie, the Greenhand



"Do you think that's laying it on too thick?"

SALUTE TO THE CHAMPIONS



STYLE 246-X-3

Treebark Kangaroo
with chocolate Alligator
wing tips.



STYLE 83-T-4

Chocolate, Alligator
Lizard with chocolate
Kid top.



Glen Franklin, World Champion Calf Roper



Shawn Davis, World Saddle Bronc Champion

All sports fans join in saluting Glen Franklin and Shawn Davis, two of Rodeo's 1968 World Champions. They were the top money winners in their respective events and set the pace all year. Americans everywhere can be proud of these two young Champions who act and speak so well for Rodeo, America's own sport. They always look sharp in Tony Lama boots, the boot brand most Champions salute for style, wear, and fit.



FIND YOUR
TONY LAMA DEALER
IN THE YELLOW
PAGES IN MOST
WESTERN STATES

OR WRITE FOR NAME OF YOUR NEAREST DEALER

TONY LAMA CO., INC. 1137 TONY LAMA ST., EL PASO, TEXAS 79915





The good life- how to enjoy it more.

One way is to rely on
New Holland equipment
that's practical in design, dependable in action.

THE best things in farm life are free.
But only if you can find time to enjoy
them.

That's where New Holland comes in. We
won't promise miracles, mind you. But
we will promise you this: machines that
work hard, that last long, that are as trouble-free as we know how to make them.

The result:
peace of mind. Suddenly the
sun seems a
little brighter
and the birds
sing a little

louder and your family's a little
closer.

Maybe this good feeling comes
from something big. Our
Haybine® mower-conditioner,
for example. We were first
with this time-saving idea
and could hardly keep up
with your orders in the begin-
ning! (They're still pouring
in!)

Or something small...such as the
swinging chain we attach to the
auger in our Grinder-Mixer to keep
the feed flowing without "bridging."



Or something thoughtful.
Perhaps the way we make
our combine controls for
cylinder speed, reel speed
and header height a
standard equipment.
But these are just ex-
amples. Anyone who
owns one of the 20
kinds of New Holland
machines can supply
you with lots more.

They all go to prove one thing: *Practical
in design, dependable in action* is a promise
we mean to keep.



 SPERRY RAND
TM



NEW HOLLAND

Practical in design • dependable in action