The Remington Model 1100 is just four years old.
Yet even the old-timers are calling it the automatic shotgun that doesn't quit.
Top skeet shooters can tell you all about 1100 reliability. Their guns often pound out more shells in a day than most guns see in a year. And they used more 1100's in the 1966 World Skeet Championships than any other shotgun.
For very solid reasons.
An 1100 receiver is milled from solid steel. Key parts are beefed up to take more stress. Working surfaces are highly polished to reduce friction. Points of greatest impact get special buffer "cushions".
And the new gas-operating system gives less "kick" than any other shotgun.
Check around. Others make automatic shotguns. But the Remington Model 1100 is made for keeps. From $159.95.

Young reliable.

It took the Remington Model 1100 just four seasons to win a reputation as the most reliable automatic shotgun in the field.

Remington
More and more new tractors are coming equipped with 23° tires.

For a very simple reason: Our 23° bar angle All Traction Field & Road tire can outpull and outlast any 45° bar angle tire around. And that’s a fact.

With traction bars set at exactly 23°, these tires outpull 45° tires by 10-16% . . . and, by as much as 26% when plowing tough alfalfa sod. That’s because 23° angle traction bars make shoulder-to-shoulder contact when they dig in . . . put more rubber on the ground. That’s also why they’ll give double the life on hard-surface roads.

These aren’t claims. They’re facts. Facts that have convinced America’s leading tractor builders. Facts that apply not just to the All Traction Field & Road, but to Firestone’s whole family of 23° angle tires. For any farming situation. Any tractor. And only from Firestone.

All Traction Field & Road—Firestone TM

December-January, 1967-1968
In This Issue

FEATURES

15 40th National Convention

THE HUGE MUNICIPAL AUDITORIUM IN KANSAS CITY WAS ALIVE WITH COLOR AND ACTION FOR THIS THE 40TH NATIONAL CONVENTION WHICH CELEBRATED 50 YEARS OF VOCATIONAL AGRICULTURE. THE EDITORS HAVE CAPTURED ALL THE ACTION IN FACT AND ON FILM. A FULL REPORT IN THIS SECTION.

30 Future Farmers With A Green Thumb

HERE'S THE STORY OF HOW DOUGLAS COUNTY HIGH SCHOOL VOCATIONAL AGRICULTURE STUDENTS, IN DOUGLASSVILLE, GEORGIA, ARE TAKING ADVANTAGE OF A NEW YO-AG PROGRAM TO QUALIFY FOR MANY EXCITING JOBS. IF YOU LIKE TO WORK WITH PLANTS, YOU WILL ENJOY THIS FOUR-COLOR REPORT.

34 Feedlots Under Water

RAISING FISH IS AS MUCH A SCIENCE AS OTHER TYPES OF FARMING. CAREFUL WATER MANAGEMENT AND SOLID FEEDING PRACTICES ARE NECESSARY, BECAUSE FISH FARMING IS ON THE INCREASE IN THE UNITED STATES, YOU WILL FIND THIS REPORT ON THE GROWING NUMBER OF FISH FARMS MUST READING.

13 Winter Starting Aids

14 Breaking The Entry Barrier

21 Pursuing Northern Pike

22 Purdue Pete

24 The Chapter Scoop

26 Texas Rodeo

28 The FFA In Action

41 Parliamentary Procedure

DEPARTMENTS

Looking Ahead 6

From The Mailbag 10

Word With The Editor 12

Free For You 37

Something New 39

Portrait 40

Joke Page 42

Our Cover

Articulate describes the FFA members who attended the National Convention. Albert Carter who won the national speaking contest was the outstanding example of this new articulate young farmer. His winning speech was titled "The Role of Agriculture in a Changing World."

Albert lives at Appomattox, Virginia, on a 201-acre farm. He is attending college on a four-year scholarship.

STAFF PHOTO BY LEN RICHARDSON

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

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CHANGE OF ADDRESS: Send both old and new addresses to Circulation Dept., The National FUTURE FARMER, Alexandria, Va. 22306.
An old salt made the kindest cut of all.

The part's in place. The current's on. Then liquid shoots down through the tool bit, hits the part and erupts in a furious attack on the metal. It's all part of electrochemical machining, a familiar metal removal process. But ECM had its limitations because the liquid electrolytes used weren't always controllable. This led to splash etching and "wild cutting."

Scientists at General Motors Research Laboratories tamed the process by coming up with a new electrolyte—an old chemical salt, sodium chlorate. Using NaClO₃, extremely precise cuts and mirror finishes can now be made in seconds—up to 100 times faster than machining with tools. Of course, research may not produce spectacles every day. But the continuing drama is always there.

General Motors
Looking Ahead

Livestock

PLAN FOR HOG PRICE UPSWING—The next long-term upswing in hog prices should start next year and continue for one and one-half to two and one-half years. That's the prediction of Karl Hobson, a Washington State University price specialist. The downswing in hog prices now underway, Hobson told a state swine meeting, is likely to continue for the next 12 months, reaching the low point in the current cycle at year's end! "The man who really makes money in hogs," he said, "is the fellow that has a lot of hogs to sell at the top of the high-price section of the cycle."

POULTRY LITTER BANNED AS FEED—The Food and Drug Administration does not sanction the use of poultry litter in livestock feeds. And feeds containing poultry litter will be considered adulterated by FDA standards, according to a release in the Federal Register. It is assumed that FDA jurisdiction does not apply to the individual who may utilize litter to feed his own cattle. However, Dr. Nelson Gay, specialist at Iowa State warns, "He would be responsible for residues of drugs or antibiotics that might be found in the feed of these cattle."

NEW LOOK AT JUDGING—Our October-November article by this title created quite an interest, judging from comments picked up at the National FFA Convention. Here's how Paul Kohler, South Dakota animal scientist, described what his judging teams are looking for these days: An animal that is set wide apart in both front and rear, a long rump (distance between pins and hooks), and when you look at the animal from the back he should be slightly rounded at the top and wider at the point of the thigh bones or stifle joints than he is at the top. You should not be able to see any sign of stomach or coarse shoulders in that silhouette.

GLANDLESS COTTONSEED OK FOR HOGS—Cottonseed meal is toxic to hogs because of the gossypol content. But cotton breeders have developed a cotton with seeds that are almost free of gossypol. Meal from these glandless cottonseeds can be used as a protein source for young pigs if .4 percent L-lysine is added, according to a University of Arkansas report. Pigs on this ration gained almost as fast as those on corn-soybean meal.

Prices tend to move narrowly around the soybean loan level.

FERTILIZER COSTS MAY EDGE DOWN—Two scientists from the Oak Ridge National Laboratory said that farmers in the future may enjoy a sizeable reduction in the cost of fertilizers and other agricultural chemicals. The report was made at an early October fertilizer conference in Knoxville, Tennessee. The cost of producing key fertilizer materials could drop to 25 to 40 percent. The report said this would occur when improved breeder-type nuclear reactors become a reality and thus reduce the cost of electricity for operating chemical manufacturing complexes.

REDUCE POORLY FILLED CORN EARS—The date corn is planted affects the degree of barrenness and the percentage of "nubbins," or poorly filled ears, according to a report before the American Society of Agronomy. Two Iowa scientists say they have found that planting after May 1 caused a significant increase of barrens in all varieties of corn tested. Early planting of corn will cause shorter plants, smaller leaves, less lodging, lower ear development, tolerance to high populations, and the highest yields, regardless of variety, they concluded.

A NEW APPLE—This new variety, which is not yet named, is a deep golden color with a red blush. This combination of colors almost gives the appearance of oranges rather than apples. It ripens two weeks later than Golden Delicious, an advantage in extending the picking season. Stark Bro's Nurseries purchased the tree from Ralph B. Grif- fith of Cobden, Illinois, two years ago for $20,000. The variety is a chance seedling, apparently a cross of Golden Delicious and Jonathan.

1968 GRAIN PROGRAM—Secretary Freeman says the 1968 feed grain program is aimed at taking 30 million acres from production to change this year's 2 to 3 percent overproduction to a similar underproduction next year. In another development, Congress refused to go along with a land retirement program that the Department of Agriculture wanted for next year. This could mean two million acres will come out of the old Soil Bank program and go into production this year, and another six million acres next year.

Machinery

NOW YOU CAN BRAND YOUR HAY—A baler attachment that marks hay or straw bales for easy identification has just been patented. The device sprays colored liquid on the wire twists that hold bales together. It was invented to stop pilferage, especially where big-scale growers leave hundreds of tons stacked by the road sides. The maker, New Holland, says there's no danger to livestock, because the marking colors are completely edible. The company's marketing plans for the bale brander attachment are still incomplete.
A challenge for your present feeding program...  

We say you'll get faster gains — and better bloom — with a Milk-Bank Feed Program  

Prove to yourself that the bank of milk nutrients pays.

Here's the bank of milk nutrients in Kraft Feed Boosters: dried whey, delactosed whey, hydrolyzed whey, cultured whey, cheese, dried buttermilk.

Kraft will help you prove on your own animals that a Milk-Bank feed program can give you better results than your present rations. We'll send you free feed formula books and performance charts so you can match Milk-Bank nutrition against any other program.

Once you do, we're sure you'll be a Milk-Bank "booster" for life.

Milk-Bank feed formulas are built around the Kraft Feed Boosters—Pex for poultry, Kaff-A for dairy and beef cattle, Kraylets for swine, Nutri-Plus for sheep, and Pace for horses. These contain nutrients not usually found in ordinary feeds, milk nutrients.

They provide lactose, a hard-working carbohydrate, outperforming all other sugars... lactalbumin protein, among the richest in essential amino acids, plus minerals, vitamins and unidentified growth factors. These give you a better-balanced ration, one that keeps animals healthy, on-feed, and growing. Gains are economical, too, because assimilation improves. Your stock puts on solid, meaty gains and grade out higher. Bloom improves, and they show better. Milk and egg production go up, too, on Milk-Bank rations.

But prove it all for yourself. Ask your dealer for rations that include Kraft Feed Boosters, and send in the coupon below for the free Milk-Bank formula books and performance charts.

KRAFT...where better nutrition starts with milk.

KRAFT FOODS  
Agricultural Division, Dept. 762  
500 Peshtigo Court, Chicago, Illinois 60690  
Please send me free Milk-Bank feed formula books and performance charts for the following:

- Dairy cattle  - Swine  - Poultry  - Horses  
- Beef cattle  - Turkeys  - Sheep

NAME_________________________________  
ADDRESS_________________________________  
TOWN_________________________________  
COUNTY______________________________ STATE________________

December-January, 1967-1968
The first Hydrostatic Drive tractor is here. Farming will never be the same.

Are eight, twelve or even sixteen speeds enough to make the most of your tractor's power? Not the way you farm today.

What you need is a tractor drive that lets you select a speed — any speed — not just a gear. And now you've got it—Hydrostatic All-Speed Drive on the new International Farmall 656 tractor.

Just move one control ahead or back. Go from 9 mph in reverse to 20 mph forward. And everything in between. On the go. No clutching. No shifting gears. No touching the throttle. No break in power. No jerking.

That's right. Just one control. To cut ground speed and maintain drawbar pull to lug through tough spots when plowing. Stop, back up, reset a tripped bottom and move ahead. Slow up for safe turns.

Plant at the exact speed you need. Put down chemicals precisely at specified rates. Bale and chop at the best speed for full capacity—speed up through light growth, slow down through heavy spots. Shuttle fast from manure pile to spreader. You do it all with no shifting of gears.

Change speeds as often as you like—under load or with no load. No stopping. No time loss. Your average speed will be faster. You always know your ground speed because the true speedometer is connected to the main output shaft. At any ground speed, your engine keeps right on delivering full power to the pto and hydraulic system.

This is IH Hydrostatic All-Speed Drive. From the company that brought you shift-on-the-go Torque Amplifier, Hydrostatic Drive combines and windrowers — other firsts to serve the farmer. It's your key to faster work, better done, easier done — for more productivity and profit.

You'll never appreciate what a difference Hydrostatic Drive can make until you put a new 656 through its paces. See your International Harvester dealer soon.

First to serve the farmer
Rutherford, Virginia

One of the greatest privileges a vo-ag teacher's wife can possibly have is being present at the National FFA Convention in Kansas City, Missouri.

This year, I was honored with that privilege. The feelings I had as our delegation left are and shall be long remembered—all those fellows with their jackets of blue and gold, all of their smiles and hellos.

But the memory I shall hold dearest is the smile on my husband's face as he was awarded the Honorary American Farmer Degree this year. I have always known he was a dedicated teacher in his field of vo-ag, and seeing his smile as President Gary Swan made this presentation only confirmed my belief.

Mrs. Wickham B. Coleman

Greeley, Colorado

I am enclosing this coupon to request the pamphlets which I have indicated. I wish to extend much appreciation for the information pamphlets which you offer to us free. They are excellent personal and school references.

Jack Olsen

Dublin, Texas

This is rather late for me to express to you my appreciation for the cover picture on your June-July magazine, "Our Flag."

"Orchids" to you young friends for the fine emphasis you put on "Old Glory," I hope that your organization will continue to call attention to the flag.

Walter Hamilton

Mr. Hamilton was made an Honorary member of the Texas FFA Association in 1938.—Ed.

Sheridan, Indiana

Recently our chapter officers ran across an article in your magazine that interested us very much. We noticed where some chapters were giving away their own calendars to faculty members to build public relations.

We would like 50 desk style calendars. I believe this is $22.00.

Enclosed you will also find a 1968 Plan A calendar order from our regular sponsor.

Thank you and if there are any questions do not hesitate to contact me.

John E. McKinney

FFA Advisor

Many chapters don't sell calendars or have a sponsor. Instead they use Plan B where the chapter advertises and pays the bill. This is truly effective public relations.

Combining both Plan A and Plan B is good.—Ed.

Urbana, Illinois

I enjoyed reading the October-November 1967 issue and particularly "The Chapter Scoop." I am surprised to see so much news and not too much nonsense.

The possibility of a national home for FFA is certainly intriguing. I hope that this dream may some day become a reality.

I think you will be interested to know that our annual Agriculture Student Guest Day was held on Saturday, September 30, and we had approximately 1,100 young men register for the program.

Keep up the good work, and when you are in the Urbana area, be sure and stop by.

Warren K. Wessels

Assistant Dean, College of Agriculture

University of Illinois

Park City, Kentucky

Enclosed is a coupon for the free material offered in the August-September, 1967, issue. I find all of these articles helpful to every FFA member.

I think that The National FUTURE FARMER is the best magazine for farm boys there is. All the articles are educational and profitable to read. I have been receiving the magazine for three years, and I hope to continue receiving it.

Wayne Hatcher

Minneapolis, Minnesota

The article in the October-November issue of the Future Farmers of America magazine by the Honorable Hubert H. Humphrey is both a tribute and a stimulus. Seldom have I read such a concise, understanding, and heartwarming statement by a top official of government or industry as this.

William W. Lundell

Director of Public Relations

Minneapolis-Moline

Lincoln, Nebraska

Would you please send four national 1968 FFA Calendar Kits to this department for teacher education work in vocational agriculture.

We are most pleased with the cover page of the October-November edition of The National FUTURE FARMER. I thought this page very good photographically and appropriate season wise, and we are always happy to see Nebraska scenes featured.

C. A. Cromer

Department of Agricultural Education

The University of Nebraska

Warrenton, Georgia

As you know, FFA Week is coming up very soon. As the reporter of the Warrenton High School FFA Chapter, I am requesting from you some bulletin board materials in order to fix our school bulletin board during FFA Week. If you can't send any materials, I will be very happy if you would send some suggestions for a FFA bulletin board.

Eddie Grissom

You're right. FFA Week (February 17-24) is indeed coming soon. Special materials for FFA Week such as posters, outdoor billboards, TV slides, church program inserts, pocket notebooks, and place mats are available now from the Future Farmers Supply Service. A special packet of ideas, suggestions, and sample newspaper and radio materials will be mailed to every chapter soon. It's not too early to begin plans for FFA Week and its theme "Challenging Yourselves Again."—Ed.

Keener, Air Force Base, Mississippi

Please send me the information I have circled. I clipped the coupon out of the October-November issue of The National FUTURE FARMER.

Even though I am in the military service, I still have my subscription to the magazine, and enjoy reading the magazine very much.

ASC Ronald J. Mroczenski

St. Paul, Minnesota

The article in your October-November issue of The National FUTURE FARMER entitled "A New Look At Judging" was most interesting and well done. As I conduct a number of judging clinics around Minnesota and work with a large number of Future Farmer members, I would really appreciate borrowing a set of the pictures used in your article. Could we obtain the negatives, glossy prints, or slides from your file? We would give credit to the appropriate concern for the use of these prints.

Charles J. Christians

Extension Animal Husbandry

University of Minnesota

We appreciate your comments about the judging article in the last issue and hope the materials are helpful in your work with Future Farmers.—Ed.

Jena, Louisiana

I would like to receive a free copy for each of our 95 FFA members of No. 42 in the October-November issue of The National FUTURE FARMER. The title is "Seconds Save Lives."

Lee A. McDowell

FFA Advisor

Sorry, but we cannot send "Free For You" items in quantity. We're only authorized by the companies providing these booklets to fill individual requests.—Ed.

Baton Rouge, Louisiana

I am a Freshman at Southern University in Baton Rouge, Louisiana. My plans are to major in vocational agricultural education.

I have received a copy of The National FUTURE FARMER magazine. It is wonderful to read. There are a lot of free materials I will surely appreciate.

Albert Mallet

Mt. Hermon, Kentucky

The National FUTURE FARMER is one of the greatest magazines I've read. I usually find at least one helpful item in each issue.

I've been a member of the Temple Hill FFA Chapter for two years now. I plan to attend college after high school and train to be a veterinarian.

Michael Ford

The National FUTURE FARMER
What's all this worth?

The bruises, sore muscles, sweat, and calluses march through a farm boy's life so fast he hardly notices. He doesn't become immune, he just learns quickly how to cope with a contrary calf, a capricious market, or unpredictable weather.

But he spends much time at a desk, as well as in a cutting chute or aboard a tractor...he matures...he makes decisions.

By the time a farm boy reaches the point where he thinks about college, he's already received his on-the-job training as a combination agronomist, geneticist, veterinarian, mechanic, carpenter, accountant, and all-around businessman.

What's all this worth?

It's worth plenty when combined with a solid education in a great number of fields. The agribusiness community knows what a farm background means and is looking for the resourcefulness and willingness it breeds.

What jobs are available? What sort of education is needed? What are the opportunities? What salary can be expected?

For information, write Department 259

RALSTON PURINA COMPANY
Checkerboard Square • St. Louis, Missouri 63199
A Word with the Editor

A Challenge to Future Farmers

Here are excerpts from a KCMO Radio Station editorial titled "FFA Top Rated." It was read on the air October 5, just prior to the National FFA Convention. It offers a real challenge to FFA members to uphold this kind of reputation.

"Mid-October in Kansas City is blue jacket time; time for farm youth of the nation to gather for the annual convention of the Future Farmers of America. Being a regular affair each year may leave some of us forgetful of the importance of FFA.

"Few, if any, national organizations rate attention from the President and Vice President of the United States. Remember that President Eisenhower came to Kansas City to address the group a few years back. President Truman took several occasions to appear in conjunction with FFA functions. This year, Vice President Humphrey will be the convention speaker.

"Appearances by the very top leaders of the country are not just by chance. The FFA is recognized as the first in leadership among the middle range of youth. It is an organization dealing very directly with the nation's well being, and it even influences world food conditions, because much of the agricultural effort tomorrow will involve today's FFA boys."

New Chairman of FFA Foundation Sponsoring Committee

Donors to the Future Farmers of America Foundation elected a new chairman of the Sponsoring Committee for 1968 at a meeting held in conjunction with the 40th National FFA Convention. He is Mr. L. W. Davis of Milwaukee, Wisconsin, vice president of the Allis-Chalmers Manufacturing Company. He will be working in your behalf during the coming year. His principal responsibility will be contacting potential donors to the FFA Foundation.

Mr. Davis served as vice chairman of the Sponsoring Committee during 1967. He will succeed Mr. M. G. O'Neil, president of the General Tire and Rubber Company, the 1967 chairman.

Elected to the position of vice chairman at the same meeting were Mr. R. Hal Dean, president of the Ralston Purina Company, and Mr. S. W. White, president of the Oliver Corporation.

FFA is truly fortunate to count these men among the friends and supporters of the organization. We can't thank them enough. You will want to write them during the year, expressing your appreciation for what they are doing.

You may address your letters to: Mr. L. W. Davis, Vice President, Allis-Chalmers Manufacturing Co., Box 512, Milwaukee, Wisconsin 53201.

In Memory of Mr. and Mrs. Ray L. Cuff

The FFA lost two dear friends in 1967 with the death of both Mr. and Mrs. Ray L. Cuff of Kansas City. Until this year, they were the only living people who had attended every National FFA Convention. Mr. Cuff died shortly after attending a session of the 40th Convention, and Mrs. Cuff died last summer.

Their association with students of vocational agriculture actually began before the FFA was organized. In 1926, Mr. Cuff was asked by an official of the American Royal if he should cooperate in setting up a national judging contest for students of vocational agriculture. His reply was, "Close the deal before they have a chance to change their mind." These judging contests were the forerunners of FFA. Mrs. Cuff set up a registry in the Royal building and registered the 1926 and 1927 students.

Mr. and Mrs. Cuff observed and participated in FFA's growth from an idea to an organization. They were among the first individual donors to the FFA Foundation. Mr. Cuff held the Honorary American Farmer Degree, and in 1964 Mr. and Mrs. Cuff were awarded a plaque for dedicated service to vocational agriculture teachers and the Future Farmers of America. Their passing is a real loss to the FFA.

Wilson Cames
Editor
COLD WEATHER STARTING AIDS

By Melvin Long

DO YOU HAVE difficulty in starting your tractor or truck in cold weather? There are several products, systems, and arrangements available to help ensure starting at temperatures as low as 50 degrees below zero. Obviously, no one engine should require all the available aids. Here's help in selecting the best one for your particular needs.

Availability of satisfactory starting methods should be a major consideration in selecting a tractor, especially for diesel engines that must be started in sub-zero temperatures.

Factory-Installed Equipment. Some diesel tractors are equipped with small, gasoline-powered starting engines. The gasoline engine, in turn, can be started with the usual battery-operated electric starter. For dependable starting in extremely low-temperature conditions, this is probably the most reliable arrangement. Additionally, this arrangement permits you to "motor" the diesel engine which starts the lubricating oil circulating before cranking the diesel engine.

Main disadvantages are the extra cost of a gasoline engine and the extra time required for a two-step starting procedure. Providing two fuels for one tractor is often an inconvenience. In warm weather operation, the required two-step starting usually takes somewhat longer than direct starting on diesel fuel alone.

Diesel tractor manufacturers who do not have the auxiliary-engine starting arrangement available for their tractors usually provide other means for assisting direct cranking. For example, some tractors can be equipped with a 24-volt starting system. Extra batteries are required to furnish necessary power.

Other tractors may include glow plugs in the cylinders, or heaters in the intake manifold, powered by a battery. Or, they may be equipped with an arrangement to introduce an easily vaporized fuel, such as ether, into the engine during cranking.

However, at best, all these "starting aids" tend to be less reliable and in many cases more inconvenient than a separate gasoline starting engine.

Field Installation. There are several starting aids available for use on existing tractors, cars, and trucks. In all cases, however, the engine should be in tip-top mechanical condition. These aids are not a substitute for good maintenance—they are a supplement for unusually cold-starting situations.

Essentially, there are three basic types of assistance—easily-vaporized fuel, auxiliary heat, and additional cranking capacity. No one engine should require more than one type of assistance, except in very unusual situations.

With easily-vaporized fuel, some form of ether is introduced into the engine in all cases. However, the exact method varies widely.

Liquid ether poured directly into the air cleaner or manifold from a can or a gelatin capsule has several disadvantages. Fire hazard from careless handling is a primary danger. Additionally, it is difficult to control the amount used.

For best results, the ether must be introduced into the engine in an atomized or vaporized state. During very cold weather, some engines will die during "warm up" unless the fluid injection is continued for several minutes and then gradually reduced.

The aerosol spray helps meet these requirements. The simplest arrangement consists of spraying the ether into the air cleaner intake. On some tractors, two persons are required because of the distance between the starting controls and the air intake.

With an aerosol spray, it's generally an easy job to adjust amount of ether during engine warm-up. The right amount is just enough to prevent stalling. An over-supply raises cylinder pressures and can damage rings or pistons.

A slightly more elaborate rig provides a mounting bracket for the can and a tube to carry the ether to the intake manifold. Some arrangements mount the can within reach of the operator. Others provide a cable control to the valve which can be operated while the engine is cranked.

A non-pressurized can of ether is used with one version of the permanent installation. A control knob, within reach of the operator, operates a plunger to pump the ether into the engine during starting and warm-up.

Most auxiliary heat devices use 110-volt AC power to supply heat through the crankcase oil or through the cooling system. One arrangement, however, uses engine fuel to operate a hot-water heater hooked into the cooling system of the engine.

The electric heating units can be grouped into two general classifications (Continued on Page 38)
Breaking the entry barrier

Buying A Farm Without Money

Bright young men who hope to break the entry barrier into farming are haunted by a lack of money. Here's one way to solve money problems.

By Len Richardson

Bacon proclaimed a long time ago, "Money is like manure; of very little use unless it be spread." If you are a young man with high hopes of breaking the entry barrier into farming, chances are you have very little money to spread around. Thus the question: How can a young man with little capital get started in farming?

J. Edward Pawlick, assistant professor of Farm Management at Pennsylvania State University and a member of the Pennsylvania Bar Association, explains how a sales agreement may permit you to buy a farm with no down payment or just a small one.

A sales agreement (also called an installment land contract, a purchase contract, a land contract, or some similar name) is used when a seller of land finances a buyer who has little or no money.

It is very similar to a deed and mortgage except that it is simpler and less costly for the seller to take back his property in case of a default than it is for him to foreclose under a mortgage. You might think of a sales agreement as a long term "binder," where final settlement does not take place for many years.

In either a sales agreement or a mortgage, the buyer owns the farm, and as long as he makes his regular payments it is his farm.

If you want to, a sales agreement can also include machinery, cattle, and any other personal property. It often calls for flexible payment terms. For example, when the buyer is a son, the payments could be a percentage of the monthly milk check, or of the cash crops, or some other payment that would depend on production.

A sales agreement can be to the seller's advantage, because when a seller finances a young farmer in this way, he can sometimes command a higher price than otherwise, and he often saves on U.S. income tax.

What Property Is Included? A sales agreement may be for only the real estate. Or everything, including the cattle and machinery, could be sold as a package.

If cattle and machinery are part of the agreement, the seller should make sure the agreement is recorded by the registrar or chief clerk for his country and state so he is protected against other creditors of the buyer who might try to sell this personal property at sheriff's sale. If the agreement is not recorded, the seller is not protected.

The buyer should make sure the agreement is recorded in the recorder of deeds office in the courthouse so that all creditors of the seller and other persons have legal notice that the real estate is sold.

Down Payment. The amount of the down payment will vary depending upon the financial condition of the buyer. It could be nothing or it could be almost all of the purchase price. As a practical matter, however, if around 25 percent or more of the purchase price is given, the buyer is usually given a deed right away, and be in return gives a mortgage to the seller.

Terms. The number of years the buyer has to pay for the farm will vary. However, it is not good for either the seller or the buyer to make the term so short that the buyer cannot make a go of it. It is to the seller's advantage to keep the payments low enough so that the buyer does not have serious financial problems. If the buyer must underfeed his dairy cows, cannot buy modern machinery, or make needed improvements, the chances of his quitting the farm and defaulting on his contract become much greater. If the seller needs his money in a short time, it is best to accomplish this by allowing the buyer low payments he can meet but to provide that he must refinance in 8, 10, or 15 years. At that time, he could get a conventional mortgage from a bank and pay the seller in full. Thus in 8, 10, or 15 years the buyer usually will have one-fourth or one-third of his principal paid. At that time, he should be able to get a loan from a bank for the balance—using either his land or cown and equipment, or both, for security.

Legal Title. When the sales agreement is signed, the buyer takes possession of the farm, but he does not get a deed right away. He is, for all practical purposes, the owner of the farm, but he does not get legal title until a deed is given to him.

If the sale is for land only, a deed is usually given to the buyer after a certain number of years when an agreed-upon percentage of the purchase price is paid (This is usually 40 to 60 percent.) At that time, the buyer gives (Continued on Page 36)
The Star Farmers of America

40th National FFA Convention

Delegates at work

Excitement at the American Royal
Greg Bamford, a 20-year-old cattleman from Haxtun, Colorado, was elected to serve as national FFA president. Election took place during the seventeenth session of the 40th National Convention. The new president recently served as state president of the Colorado FFA Association. Greg lives on a 4,920-acre ranch where an additional 480 acres of cropland are leased. Greg's enterprises include 32 head of registered Short-horn breeding stock, 150 yearling steers, 200 feeder lambs, 30 acres of alfalfa, 200 acres of wheat, and 200 acres of summer fallow.

Paul Diehl, a 19-year-old farmer from Butler, Missouri, is new national secretary of the FFA. A former vice president of the Missouri Association, he has served as president of the state leadership camp and chairman of the state activities committee. Paul owns 12 dairy cows and 17 beef steers. In addition, he plans to farm 100 acres of corn, 50 acres of soybeans, and 20 acres each of wheat and oats.

William Boehm, a 20-year-old Wisconsin farm leader from Mosinee, has been elected national FFA vice president for the Central Region. William owns 36 dairy animals; 25 of these are producing cows. In addition, he maintains a 30-head hog farming enterprise. His varied activities in the FFA include participation in local cooperative activities, serving as discussion leader at district and state parliamentary procedure schools, a term as state chaplain, and finally state president.

Richard Jones, 19-year-old dairyman from Hamilton, New York, was elected national vice president for the FFA's North Atlantic Region. He has his own small, but growing herd of Holstein cattle and has played a big role in setting up a new dairy barn, herringbone milking parlor, and feeding system on the home dairy. Richard has just completed a year as president of the New York FFA and has been a three-year member of the Dairymen's League Cooperative steering committee.

John Gemmill, a member of the Agua Fria Union High School FFA Chapter, Peoria, Arizona, is the newly elected vice president for the Pacific Region. The 18-year-old member has 100 percent interest in 118 head of feeder calves and 40 head of feeder steers. A former state president of the Arizona FFA Association, John has maintained an outstanding scholastic record. He was salutatorian of his graduating class and won an award for maintaining the highest grade average of all vo-ag students in Arizona.

Robert Rish, a 20-year-old Pelion, South Carolina, Future Farmer, won the title of national vice president for the Southern Region when he was elected to office in Kansas City. Bob's current farming program by enterprises include 18 feeder pigs, 4 brood sows, 1 acre of squash, 4 acres of peanuts, 25 acres of wheat, 20 acres of corn, 3 acres of watermelons, and 70 acres of soybeans. He has served as sentinel, vice president, and president of his local chapter and as president of the South Carolina FFA Association.

These 448 Future Farmers were elected to the American Farmer Degree, the highest degree given by the organization.
Over 12,000 Attend 40th FFA Convention

As our JET bayoneted the last cloud and touched down in Kansas City, Missouri, there was already a hint of excitement in the air. True, spring was still far away from Kansas City, but there were butterflies everywhere.

No, this was not nature's work: the flutters were caused by more than 10,000 blue-jacketed Future Farmers about to celebrate 50 years of vocational agriculture and meet in their 40th National Convention. The strain of anticipation was evident in the four Star Farmers, one of whom would soon become Star Farmer of America. Taking that title alone would be worth $1,000.

Elsewhere a Future Farmer practiced the speech he would give in the National Public Speaking Contest, and a Secret Service agent talked in earnest with a ribbon-bedecked official. The agents were laying the groundwork for a visit by the Vice President of the United States to the National FFA Convention.

In fact, it was the Vice President's speech which opened the convention. Future Farmers and guests packed the huge Municipal Auditorium for the speech and boomed a welcome that went to the rafters. The 40th convention was already on its way to history!

The entire 40th convention was dedicated to celebrating 50 years of vocational agriculture. The Vice President's speech, and talks by other distinguished speakers like the Honorable Wayne Morse, United States Senator from Oregon, paid tribute to the convention theme.

Named Star Farmer of America—highest honor in the FFA—was David J. Mosher, 19, of Greenwich, New York. David is an outstanding dairy farmer (see "More Than A Dairyman" in the October-November issue, page 28) who was presented the $1,000 award from the FFA Foundation in a dramatic ceremony. Young Mosher shared the spotlight with three other FFA members who were named Regional Star American Farmers and who received checks of $500 each. They were R. A. "Rande" Kummer, 22, Deer Park, Washington; William T. Roberts, 21, Hahira, Georgia; and William E. Falls, 20, of Stet, Missouri.

(Continued on page 19)
A Career for You in Agriculture

Educational exhibits from 33 national trade associations and professional societies depicted the many career choices that are available to FFA members in the total industry of agriculture. In the photo above, Future Farmers discuss career opportunities in agricultural communications at the exhibit sponsored by the American Agricultural Editors' Association. Describing the opportunities is Cordell W. Tindall, vice president of The Harvest Publishing Company and editor of Missouri Ruralist. In most of these careers, your farm background is an asset.
Exploring Careers, Judging Contests, Business Sessions, Kept Future Farmers Busy.

A total of 448 Future Farmers received the organization’s highest degree, that of American Farmer. Honorary degrees were conferred on 41 friends of the FFA, fathers of Star Farmers, and national officers. In addition, 25 teachers of vocational agriculture received the Honorary American Farmer Degree. This is a unique honor in teaching since selection is based on a score card, including many factors such as number of outstanding FFA members produced, number of boys established in farming, length of service, and others. Distinguished Service awards were presented to 30 persons who have made outstanding contributions to the development of the organization.

Gold Emblem ratings went to 54 chapters in the National Chapter Awards Program. They were Arizona—Coolidge; Arkansas—Mansfield; Colorado—Eaton, Platte Valley; Connecticut—Housatonic Valley; Florida—Santa Fe “Senior”; Georgia—Greenville, Winder-Barrow; Illinois—Maroa, Sycamore, Warren; Indiana—Clinton, Coal Creek Central, Hagerstown; Iowa—Bloomfield, Kansas—Atchison County, Garden City; Kentucky—Anderson County, Memorial (Lincoln); Louisiana—Saline, Slidell; Maryland—Damas- cus; Massachusetts—Wachusett; Michigan—Cassopolis, Corunna; Minnesota—Jackson; Mississippi—Inverness, Morton; Nebraska—Ainsworth; Nevada—Ruby Mountain; New Mexico—Roswell; New York—Barker, Hamilton; North Carolina—North Iredell; North Dakota—A. S. Gibbens, Minot; Ohio—Big Walnut, Fairfield Union, Marysville; Oklahoma—Broken Arrow, Fletcher; Pennsylvania—Grassland, Kutztown, North Lebanon; Texas—Aze; Utah—Bear River, Millard Eagle; Virginia—Robert E. Lee, C. T. Smith, Tunstall; West Virginia—Ripley, Terra Alta; Wisconsin—Monroe; and Wyoming—Frontier.

Top Foundation awards went to the following: Crops—Jackie Lynn Courson, Hickory Flat, Mississippi; Agricultural Mechanics—Norman W. Groat, Jr., Walton, New York; Farm and Home Electrification—Danny Meagher, Crothers ville, Indiana; Forestry—Paul Early, Kalamazoo, Michigan; Home Improvement—Gary Winegar, Ellensburg, Washington; Livestock Farming—William E. Falls, Stet, Missouri; Ornamental Horticulture—Anthony E. Di Sal vatore, Mays Landing, New Jersey; Poultry Farming—Rob ert D. Moorefield, Shady Springs, West Virginia; Soil and Water Management—Johnny McElroy, Snyder, Oklahoma. Each award winner received a $250 cash award from the Future Farmers of America Foundation, Inc.

The Star Dairy Farming award was made earlier in Waterloo, Iowa, at the National Dairy Congress. Winner was Jack W. Gibbons, Clymer, New York.

In judging contests, top awards went to the following teams: Dairy Cattle—Rising Sun, Maryland; Dairy Products —Licking, Missouri; Poultry and Eggs—Abilene, Texas; Meats—Hanford, California; Livestock Judging—Washington, Missouri.

Special recognition went to donors of the FFA Foundation. They were guests for a special reception and were also recognized on the convention floor. Twenty-four nationally known business and industrial concerns and one personal donor were presented plaques of appreciation for 15 years as donors to the Foundation.

The donors honored for 15 years’ support were Amchem Products, Inc., Armco Foundation, The Atchison, Topeka,
The Curtain Falls on the 40th Convention


Below the convention floor a Career Show, "Exploring your future in Agriculture," was the main attraction. Here educational exhibits from 33 national trade associations and professional societies depicted the many career choices that are available to trained young people in the total industry of agriculture. Each of the organizations had professional personnel from their field in the booths to counsel with the agricultural students in attendance at the convention.

Back on the floor, official delegates took up everything from routine business to a proposed change in the method of selecting delegates to the National FFA Convention. The proposed change was voted down by a close margin, and no action was taken on the National FFA Center.

Entertainment included the National FFA Band and Chorus, always impressive, the Firestone Show with a dazzling array of pretty girls, and the FFA Talent Show. Another big hit was FFA Day at the American Royal where Ken Curtis, Festus of "Gunsmoke," entertained.

Hardest working of all were the retiring national FFA officers, headed up by Gary Swan of Jasper, New York. Each officer took a turn at the gavel in addition to delivering a retiring officer’s address.

When the final gavel sounded, 50 years of vocational agriculture had been celebrated in a big way, and a new FFA year began. You can be sure your new national officers will try to make it the best year ever.
Pursuing the Northern Pike

By Arland Carlson and Loren York

HOW WOULD YOU like to go camping on a lake that has more than 1,000 separate islands and is loaded with fish? Members of the Lander, Wyoming, Chapter have been doing just that for six years. This year we caught 739 pounds of fish in three days! Sound like a fisherman’s eden? Read on, and we’ll tell you how our FFA members earned the trip and even how to find the spot!

This annual FFA trip is made to northern Saskatchewan, Canada. In order to finance the trip, the Lander FFA members hold a slave sale where each member is sold to the highest bidder for one day’s work. Average price for a member’s work has been about $12.00. Since the chapter has about 60 members, this sale earns the chapter about $700 per year.

By camping out and cooking their own meals on the entire trip, the chapter can keep trip cost to about $50.00 per boy. Each year, the chapter sends ten members on the trip along with their two advisors.

In addition to taking two cars, two boats were pulled. The boats were needed to haul gear as well as to use for fishing.

The trip route takes the group up through Bighorn Basin in northern Wyoming, through Billings, Montana, and north into Canada either through Plentywood, Montana, or through Malta, Montana. After passing through the port of entry, which consists mainly of registering vehicles, the trip proceeded north to Prince Albert, Saskatchewan. At Prince Albert, the scenery suddenly changes from rolling wheat farming to thickly wooded forests. From then on, the entire country is either thick woods or water. From Prince Albert, the chapter traveled straight north through Prince Albert Provincial Park to where the pavement ends at Waskesiu. The rest of the trip is on a good graveled road for 100 miles to the end of the road at Lac La Ronge. In the past, the chapter has stayed here and fished this big lake. It is roughly 30 by 50 miles with over 1,000 islands. It is one of the north’s most famous fishing lakes and is the seaplane port for those who want to go on to Great Slave and other far north lakes.

This year the lake was still frozen over, so the chapter went to Nemeiben Lake, 15 miles from La Ronge. Though much smaller, you still require a guide to find your way around the lake or to find fish.

On arrival at this lake, camp was set up and arrangements for boats and guides were made for the next day. A couple of Future Farmers took a boat out about three miles and caught a few walleyed pike, and we all enjoyed a fresh fish fry.

For the next three days, starting at 6:00 a.m. with breakfast, the boys fished. The weather was beautiful, and fishing was really great!

Our Indian guide took us to a different spot each day, and the fishing seemed to get better every day. On two different occasions, a portage was made across dry land with our boats to get to another lake.

We were all going after northern pike. The walleyed pike is considered a better eating fish, but the big northerns are a much larger and harder fighting fish. Light-weight spinning tackle with 12-pound line was used for fishing. The largest northern pike we caught weighed 14½ pounds after being out of the water for several hours. Future Farmers landed many pike weighing from 5 to 10 pounds.

The limit on fish in this country is very generous; each person can have 90 pounds of fish in possession. The fish are filleted by native women and frozen by the outfitter for 9 cents per pound. The filleting bill for three days was $66.51 for 739 pounds of fish—not bad for three days’ fishing.

Although this trip is mainly a recreational trip, it has turned out to be one of the most interesting and educational one could make.

Landers, Wyoming, Future Farmers display over 200 pounds of northern pike and walleyes caught on Canadian trip.

Future Farmers argue over who has caught the biggest fish. Terry Johnson caught one weighing 14 pounds.
FROM AMONG THIS year’s crop of American Farmers, there are many exciting stories. The four Star Farmers stand out, but each American Farmer has a unique story all his own. Take Charles L. Whittington for example.

Around Elizabethtown, Indiana, if you want to buy some oats for your horse or corn for your cattle and hogs, the person to see is Charles. Although he stands six feet tall and weighs 200 pounds in the burly Boilermaker tradition, he is known to his friends as “Shorty,” a nickname given him when he was a junior in high school.

However, if you are a student on the campus of Purdue University and you are more interested in a nice place to retire in Florida than in oats and corn, friends will tell you to see Purdue Pete.

Pete, who is a mascot of Purdue University, has a big head (in fact too big to be human), and there is constantly a smile on his face. He also carries a huge mock sledge hammer. But the person you see about the Florida land is inside that head. It’s the same Charles Whittington who can sell you oats in Elizabethtown.

The reason Charles is able to sell oats is that he is president of a grain elevator, besides being part owner of an 800-acre farm.

This is Charles’ first year as Purdue Pete. He will appear at all Purdue football games. He will also appear at many of Purdue’s home basketball games, including the dedication of the new basketball arena on December 2.

On top of his duties as a student and Purdue Pete, that 800 acres of land (on which he has 2,000 head of hogs) keep him quite busy. His partner is his father, Mr. Charles B. Whittington, a rural mail carrier who has invested part of the capital but leaves most of the management up to his son. They employ tenants to help with the farm work while they pursue their other duties.

During his summers in high school, Charles was an active livestock showman, and in 1964 he showed the grand champion hog at the Bartholomew County Fair. He also spent his summers buying, cutting, baling, and reselling hay. This was his own operation, and with the profit he made, he was able to make his business investments.

Last May, he joined a group which purchased the Grammer Grain Elevator in Grammer, Indiana, southeast of Columbus. He is now president of the corporation, and one of his partners is his father. As for having executive power over his father, he said, “It doesn’t bother me. Ever since I graduated from high school, my dad has allowed me to make all my decisions. It was my decision to purchase the elevator, and it’s my duty to run it.”

His goal is to someday have a big farm operation in the North (as he has started in Indiana), and another one in the South. He and his father recently invested in some Florida farmland and ten acres of housing land in Golden Gates Estates near Naples, Florida.

Charles considers the American Farmer Degree his
greatest honor in farming. He was graduated from Columbus High School in 1964, and he has earned the respect of the community both during high school and during his college life. O. V. Keesling, of Bartholomew County, has the highest praise for Charles. "He's a real fireball! How that boy ever accomplishes all he does, I'll never know. He's an outstanding example of a model of youth in action," he said.

Charles explained how his farming and other enterprises started: "It all began 11 years ago when I invested in a registered Duroc gilt. By reinvesting my money in more hogs each year and working on my father's farm for the feed needed, I was able to build up the present operation." He started building his machinery operation in 1960 when his father turned the custom hay baling operation over to him. "I have hired labor to help out in the farming operation, and this has enabled me to build my custom hay business into a $5,000-a-year enterprise," asserts Charles.

Charles, who is majoring in agriculture at Purdue, is a member of Alpha Gamma Rho social fraternity, the Gimlet booster club, and the Pep Committee. Last year he was in charge of the pep rally before the Indiana-Purdue game.

He said he had been interested in becoming Purdue Pete since his senior year in high school. "I didn't participate in athletics in high school because of all my other activities. When I saw Purdue Pete, I saw an opportunity to be a real part of Purdue's athletics. So I joined the Pep Committee and worked hard for three years, and now I'm Purdue Pete."

Being Purdue Pete is not all joy and no work, Charles explains. "I wear shoulder pads to give me a good frame on which to support that fiberglass head. When the head goes on, it's taped to my chest and back to insure its stability. I wrap a couple of wet towels around my neck to keep me as cool as possible. I can't see too much from the inside, because the hole for sight (the mouth) is only two inches in diameter."

Charles has proven that he is equal to this man-sized job. His enthusiasm has already built a large farming and business enterprise. In fact, Purdue Pete has a running start at his goal of becoming a major farmer in both the North and South.

Right above: Future Farmer Charles L. Whittington is Purdue University's mascot, Purdue Pete. At right: He is in partnership on an 800-acre farm. At left: Hogs are the main farm enterprise. It all started when he invested in a registered Duroc gilt. Today they have 2,000 head. Below: Charles is president of a corporation which operates the Grammer Elevators, Inc. He is conferring with two important partners in all of his operations, his parents Mr. and Mrs. C. B. Whittington.
THE CHAPTER SCOOP
news, notes, and nonsense from everywhere
by Jack Fitzer

The 51-acre watermelon patch of Allentown, Florida, Chapter was a whopping success this year.

DeWitt, Iowa, Chapter is using artificial insemination on their swine herd.

Rodney Dethlefs, Ravenna Chapter, had champion Yorkshire female at Nebraska State Fair.

Highland, Kansas, FFA capped first place with educational booth at Mid-America Fair. Titled “FFA Challenges Youth in Agriculture.”

Lots of fun and over 300 bucks were results of Lodl, California, donkey basketball game. Seniors vs. juniors. Unbelievable uniforms, even football helmets.

Dodge City, Kansas, Chapter granted Honorary Chapter Farmer Degree to Secretary of Agriculture Orville Freeman.

High score in Washington State FFA knowledge quiz was earned by Steve Stokes, Twisp Chapter. Tom Solbrack and Bruce Cannon, of Rosalia, tied for second.

Seneca, Illinois, members challenged chapter alumni in a basketball game. Keeping former members involved—great plan.

Chapter members at Atlantic, Iowa, collected juice cans. Painted them. Gave away for flower pots on Memorial Day at cemetery.

Members of Charlotte, Michigan, Chapter went to Expo ’67. Earned the money selling Christmas trees. Spent two days at fair, one night in Montreal. Did lots of girl watching and picture taking!

Idea—father-son hunting seminar. One-day event. Some theory, practical work, and then hunting.

Grand champ junior market hog sold for $209.30 at Colorado State Fair. Shown by Dean Boyd, Wellington.

Sherburn, Minnesota, members cut cornfield corners. Promoting safety on country roads.

Enthusiasm plus—Elida, Ohio, Chapter made addition to regular roadside sign: “Home of Keaton Vandemark, National Vice President.”

Wonder how many thousands of flashbulbs were used at the National Convention?

Jay Rice, Choteau, Montana, took high individual in both land and range judging at state fair. His scores put chapter on top in both events.

Top winners in Pennsylvania FFA Week activities for ag salesmanship are William Donaldson, Marion Center; Robert Brooks, West Middlesex; and Russell Angstadt, Upper Bucks.

Second graders got a big charge at North Kitsap, Washington, Chapter’s “Baby Farm.” Kids came from area schools and saw typical collection of young farm animals.

Cleveland Sumpter, Charlie Jackson, John Porter, and Harvin Nixon won South Carolina quartet contest. From Ebenezer Chapter.

A summer tour in Northern Pacific states to learn different farming methods for Morgan, Utah, Future Farmers.

Report: Our chapter’s sweet corn plot yielded 100 bushels. Delivered corn to friends and supporters of chapter. Manchester, Iowa.

Officers and committee members should start planning the chapter banquet: especially the program and ceremony so they go smooth.

Start the ball rolling for FFA Week. Bring it up at the next chapter meeting.

Falkville, Alabama, held summer training program for chapter officers. Then adjourned to swimming pool.

New officers of Salem, South Dakota, Randy Matzke, president; Vernon Lind, vice president; Arlan Klingberg, secretary; Rick Ecklein, treasurer; David Gough, reporter; Tom Pearson, sentinel; and Mr. Larry Nelson, advisor.

Tucumcari, New Mexico, Chapter bought feed grinder. Charge members 10 cents per 100 pounds for grinding. Figure to save 25 cents per cwt., for members.

Glen Weber, past Pennsylvania president, and Gerald Pope, past Ohio president, were two of the lucky Future Farmers who shook hands with Vice President Humphrey at the airport in Kansas City.

Shop enthusiasts, need an anvil? Robert Dalton of Gans, Oklahoma, suggests 21/2 feet of railroad rail, upside down, makes a good one.

First Mississippi chapter to pay dues and submit membership roster for year—Pine Grove. 72 members. Mr. I. L. Deen, advisor.

Sparta and Lakewood Chapters had to share regional title in Michigan corn growing contest. Both got 503 points out of 505.

Southwestern Chapter of DeLand, Florida, has a fathers’ club. Dads learn more about FFA. Then help support chapter activities.

Please keep us informed of any news, notes, or nonsense that would interest other Future Farmer readers. I need your help cause my crystal ball is broken.

The National FUTURE FARMER
You'll see in-the-field newsreel reports on the use of computers in farming... on a new vaccination program to prevent shipping fever... on "shorty" hybrid corn or new hybrid wheat... on the new crops and management practices that will influence your future in farming.

You'll see and hear Chet Huntley reporting on the newest John Deere equipment for your area.

You'll take a film trip to Japan and learn how valuable a customer it is for U.S. farm products.

"Farming Frontiers '68" is an interesting, worthwhile assignment for all students of agriculture—
for the teacher or the leader of a group as well as for the young man who's looking forward to a farming career.

"Farming Frontiers '68" is coming to your local John Deere dealership soon. If you're a teacher or a learner, make it your assignment to learn the program date—and to have it put on the activities calendar for your group.

JOHN DEERE

Ag class will meet tomorrow at the John Deere Dealership to see Farming Frontiers '68
It's action like this that draws capacity crowds to the Cy-Fair FFA Chapter's summer rodeos. As many as 3,000 persons turn out for the rodeo performances.

RODEO Texas Style

By George Drushel, Jr.

GOATS BLEATED and scattered in all directions as the riders, aboard fleet cow ponies, bore down upon them with swinging lariats and lusty screams. Dust boiled over the small group of ranchers who, along with their wives and children, braved a hot Texas sun to watch the spectacle.

One by one the terrified goats hit the ground ensnared in well-aimed rope. The sweating horses loped to a stop, and the lanky cowboys, still panting from their exertions, swung to the ground. A cool breeze sprung up as the beaming sun began to set, and a smiling F. E. Arnold, FFA advisor, stepped forward to announce that this was the end of Cy-Fair (Cypress-Fairbanks) High School's first rodeo.

Neither Mr. Arnold, the participants, nor the spectators dreamed that this bit of horseplay would develop into one of the largest, best attended rodeos in the sprawling Houston metropolitan area. Nor did they dream it was the beginning of one of the most profitable Future Farmer chapters in Texas and probably the United States.

"It all began 21 years ago this June," said Mr. Arnold relaxing in his comfortable air-conditioned office in the $100,000 vocational agriculture building. "Cy-Fair High was a small rural school with few activities. When two of my boys came to me and asked to put on a rodeo, I was all for it."

He smiles when he remembers the goat episode. "We used goats because no one would loan the boys livestock for such rough treatment," he said. "We didn't have many spectators because this was a ranching area and underpopulated. We didn't have many participants for the same reason."

Things have changed a lot in the past 21 years. The school now has over 1,000 students and 125 boys taking part in the vo-ag and FFA program. Two vo-ag teachers, Larry Cooper and Billy Ellis, now share the work with Mr. Arnold. About 25 boys take part in the rodeo in some capacity. Due to Houston's rapid growth, crowds have grown from a few dozen farmers to over 3,000 persons for each Friday night's performance during the summer months.

"A handful of boys chasing goats up and down the Texas prairie is a far cry from today's big school-sponsored rodeos that feature roping, bull riding, and the rest," Mr. Arnold asserts. "I think the success of the program demonstrates what a group of teenagers can do when they work hard and are dedicated. I think the success is a tribute to the courage and endurance of these athletic young men who work hard during winter months and come here during the summer to earn money for the chapter and have fun riding some pretty wild bulls and horses every Friday night."

When he speaks of success, he means the $27,000 that is taken in during the summer from sale of tickets and operation of a concession stand. He also is speaking of the chapter's yearly take of some $61,000 from all FFA activities.

Backbone of the club's financial structure is the rodeo. "We use these funds to capitalize our other ventures," Mr. Arnold states.

He is referring to the buying and leasing of land used to grow feed for cattle and horses that are also purchased, for the most part, from rodeo money. The chapter now owns or leases 687 acres. During one year alone, it paid $7,900 to buy land and $1,050 more in pasture rental fees.

The land is an excellent Future Farmer training ground and brings a tidy sum to the chapter treasury. "Last year, we earned $4,002 by selling feed raised on the land and another $6,481 through the sale of livestock," he said.

A list of the chapter's total assets reads like the financial statement of a small, highly successful ranch. Besides acreage, the chapter owns a large rodeo arena and all equipment needed to conduct its weekly shows. The average inventory includes 97 head of horses and 36 head of cattle.

Despite its spectacular financial success, Arnold reminds everyone that this program is for education. "We train these boys to take a place in the field of agriculture immediately upon graduation, and we also prepare them to go to college for advanced training if they choose.

He advises anyone wishing to start a rodeo to gather a group of strong and determined boys, some horses, and goats and see where it all will lead.

"I can't guarantee everyone financial success, but I can guarantee them a lot of fun," he concludes as he looks back and remembers that first group of riders chasing scared goats up and down the Texas prairie.

A sudden stop by this bull will give Terry Gabriel a taste of Texas soil.

The National FUTURE FARMER
the story of Jimmy Carter and his Brown Swiss calf Heida...

This is a story that really happened...of a calf that really did exist...really did win a prize ribbon...and really was fed Florida Citrus Pulp in her feeding program. This full color 16mm film, with a running time of 14 minutes, is available for showing to all clubs and organizations. Just fill in the coupon and we will ship you the film with enough Citrus Pulp Brochures for each member of your group.

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First the hunting, then the big feed.

**NEBRASKA**—An FFA-FHA Pheasant Feed is a big event each year for the Wilber Chapter.

FFA and FHA chapters traditionally sponsor a number of social and recreational activities throughout the school year, but members of this chapter especially look forward to their pheasant feed.

Each FFA member is asked to bring in one pheasant. The Future Home-makers prepare these and the other goodies for a big meal. Only FFA and FHA members and adult advisors attend the pheasant feed.

In order to get the pheasant, some of the members get together for a group hunt. Others have better luck on their own. There are over 70 members in the chapter, so it is impossible to go as one group. The event is conducted as recreation for the two groups, and a dance is held after the meal. During the year, they jointly sponsor a Christmas caroling party and a school spring prom.

Wilber FFA Chapter sweetheart is also selected by the members from the FHA.

**MINNESOTA**—An enthusiastic effort by members of Minnesota FFA chapters has built a $65,000 Speech Therapy center at Camp Courage.

In August, an "FFA Appreciation Day" was sponsored by the Camp Courage staff and the Minnesota Society for Crippled Children. The following tribute was printed on the cover of the "Appreciation Day" program:

"To the young men of FFA: The purpose of "FFA Appreciation Day" is to say thank you. But because thank you alone seems inadequate, we welcome you to Camp Courage to see for yourself the meaning of your help. The joy of these handicapped youngsters says thank you better than any words. The ‘camperships’ you provide for them and the Speech Therapy Center you have built for them are the results of your ‘Corn Drives for Camp Courage.’ Your splendid efforts to help these youngsters to happier and healthier lives reap not only their boundless thanks but the admiration of a proud community as well. Thank you."

Contributions by chapters in 1966 exceeded $30,000 for a total of $150,000 since 1953. Most of this money was raised with "Corn for Camp Courage" drives. But in parts of the state where corn isn't predominant, chapters glean patches of grain after harvest or cut, peel, and sell pulpwod.

Part of the FFA efforts provide "camp-erships" so handicapped children can spend two weeks in the outdoor clinic.

**WISCONSIN**—Chapters throughout Wisconsin have joined together to provide additional recognition for farmers at their state fair.

FFA farmer recognition is given to men who have given support, assistance, and encouragement to local chapters in their community. The men are often Honorary Chapter Farmers.

A special recognition program and dinner is conducted by the FFA to recognize these farmers for their efforts on behalf of Future Farmers and to say thank you. Honorable Governor Warren P. Knowles gave the main address. State FFA Secretary Ron Deiter, Cuba City, welcomed the honored farmers. In introducing the honorees, a brief summary of their activities was read.

Local chapters submit nominations of farmers who have helped their chapter. The event is certainly a beneficial public relations effort to encourage further support for FFA and vocational agriculture. The FFA Honor Farmers Program is held each year at the state fair on the same day as the state honors all of its outstanding farmers.

State FFA Secretary Ron Deiter joined forces with Governor Warren P. Knowles for the FFA Farmer Recognition Day.
IOWA—Rural safety never loses its importance. Members of the Iowa Falls Chapter went into action to improve visibility at rural intersections in their area. Special emphasis was given to intersections blinded by high weeds and corn. They determined to reduce accidents and loss of lives in their area. The Future Farmers obtained permission from farmers to cut the tops off of corn. They cut back 100 feet from the corner post in a triangular shape.

An article in the Times-Citizen appealed to all farmers in their area to join them in this campaign. Explaining what to do, the article suggested that corn be cut back after pollination to about the second node above the ear, leaving the six leaves surrounding the ear. This would clear vision and yet not cause extreme corn loss.

It was also emphasized that speeders won’t benefit by 100 feet of clear vision of approaching traffic. Careful approaches to rural intersections are imperative.

A blind corner at a rural intersection before and after the corn was chopped.

IDAHO—Each year the Fruitland, Idaho, Chapter assists in sponsoring several community Christmas activities. These include the popular Fruitland Peace Candle, “toys for tots,” and a Christmas program at the state school.

The Fruitland peace candle, which has been in existence for seven years, is steadily growing to be one of the top Christmas season attractions in Idaho. The Christmas Eve peace candle lighting ceremony received recognition in the New York Times in December, 1965. It was listed as one of the nation’s top twenty tourist attractions for December, 1966—along with the Cotton Bowl game and Christmas in Williamsburg—by the National Association of Travel Organizations.

The form for the candle is built in the vocational agriculture shop and then old candles, donated by community residents, are melted down and poured into the form. The Future Farmers then move the candle to the Fruitland Park where they remove the form, paint the candle, and decorate the stand.

“Toys for tots” is a community service in which the local Lions Club and the FFA chapter collect, mend, and re-condition toys to be distributed to needy children. All repair work is done by the Future Farmers, and hundreds of toys are repaired each year.

The FFA chapter also joins forces each year with the Future Homemakers chapter to present a Christmas program for the mentally retarded children at the state school at Nampa, Idaho, fifty miles from Fruitland. After the program, Future Farmers become Santa’s helpers and present the children with toys which have been collected by the FHA.

OREGON—Standing room only! Members of the Canby Chapter are proud to boast about the success of their annual amateur show. The event is held each year on the Tuesday before Thanksgiving for a capacity crowd of 1,200.

Chapter members conduct all aspects of the show. There are two divisions of participation—junior (grade school or younger) and senior (high school or older). From auditions held a week before the show, 12 acts are selected to compete in each division the night of the show.

A radio personality from the Portland area is master of ceremonies. Talent entries are secured by distributing entry blanks to interested individuals or groups in school and throughout the area. There are three local judges for the big night.

Future Farmers serve on a variety of committees such as advertising, auditions, prizes, ushers, productions, programs, tickets, and stage.

Prizes are donated by local merchants. Each participant gets some kind of prize, plus a large number of door prizes are presented. Examples of prizes include large turkeys, hams, rabbits, ducks, slabs of bacon, eggs, hog halves, and flowers.

Chapter members also compete in pre-ticket sales. For their efforts, the chapter members realize a tidy profit for the treasury and conduct a good community amateur show.

The annual amateur show provides an excellent opportunity for the FFA chapter members to conduct a successful community service activity and, at the same time, to benefit from the public relations.

You will surely get a chuckle out of this prize list which attracts participants in the FFA amateur show.
FUTURE FARMERS at Douglas County High School acquire a green thumb as they advance through vocational agriculture. It's a result (like the bright red poinsettia pictured) of a new program being taught at Douglasville, Georgia.

These young men are enrolled in Mr. Frank Cloer's ornamental horticulture class and have management responsibilities for the crops produced in the school greenhouse. This greenhouse is part of the vocational agriculture laboratory facilities and was built last year as a part of a pilot program in the state.

Besides Douglas County, there are four other school-owned greenhouses in Georgia that are part of a pilot program in ornamental horticulture, and several others will be built next year.

Even though all of the vocational agriculture students at Douglas County High School study horticulture and landscaping, the greenhouse is operated by fourth-year students.

Mr. Cloer explained that two seniors are assigned to a "growing bench." These students have full responsibility for this bench from setting the plants to marketing. They plan a 12-month program for the crops that will be produced.

Half of the "growing benches" are planted in permanent crops, and the remainder contains seasonal plants. In their vocational ag classes, students study units dealing with selection and production of the crops. These include fertilization, disease and insect control, mixing and sterilization of soils, harvesting and marketing of crops, propagation materials, scheduling planting dates, and record keeping.

By Eleanor Gilmer

Future Farmers with a Green Thumb

Here's how Douglas County High School FFA'ers, Douglasville, Georgia, are taking advantage of a new vo-ag program to qualify for exciting jobs.
Before planting, students determine by a soil test the nutrient requirements for their particular crop. They then mix the soil, fertilize, and add the necessary plant food.

The next job is to properly install the plant and necessary growing equipment. For instance, they install lights if the plant requires additional lights, or shade cloths if longer periods of darkness are required. These plants are called light-sensitive plants. Growing nets for holding up the crop may also be necessary.

Other management jobs include applying necessary fertilizers, watering, pinching, and disbudding. Timing practices must be studied and used to make the plant blossom at the desired time.

Some of the plants produced by Douglasville students include chrysanthemums, poinsettias, snapdragons, carnations, geraniums, begonias, azaleas, orchids, and numerous house plants. They have one demonstration tomato plant and some pepper plants for ornamental purposes.

The plants are marketed mainly to wholesale florists in the Douglasville area. Others, however, are sold on an individual basis. Some go to the students themselves, and some are used in the FFA chapter community service activities. Thus, the program benefits the chapter's public relations.

"We are not in this as a money-making business," explained Mr. Cloer, "but it is a self-sustaining type of program."

Additional horticulture enterprises carried by Douglasville Future Farmers from the first to the fourth year include producing bedding plants, propagating shrubs, and hardwood control. Construction of miniature greenhouses or propagation boxes are made by first-year students in the vo-ag shop.

As a matter of fact, most of the big greenhouse work was done by students under the supervision of Mr. Cloer. This greenhouse is 29½ feet wide and 81 feet long. Its construction provided an excellent opportunity for students to put to practice many of the skills learned in their vo-ag classes. The project required laying off the building, setting a steel structure, erecting prefabricated sides and roof, and installing doors, windows, and glass. They did all of the plumbing, mixing of concrete, and wiring.

"The study of ornamental horticulture is an educational program for students of vocational agriculture and is part of a school-provided supervised practice program," reasons Mr. Cloer.

"When these students have completed their study of ornamental horticulture, most of them will be equipped with enough knowledge and skill to qualify them for a job in a commercial greenhouse," he concludes.

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The National FUTURE FARMER
FFA's Study Tour of Europe

WOULD YOU like to take part in an exciting and educational adventure next summer? The Future Farmers of America, in cooperation with the International Agricultural Exchange Association, is sponsoring a study tour of five European countries. The tour begins on June 9 at the National FFA Center in Alexandria, Virginia, home of your national magazine and supply service. After a visit to these operations, a briefing will be conducted by national staff members. The group will then depart by jet plane for London.

From London the tour continues by motor coach through southern England where participants will have an opportunity to spend a day and night with an English farm family. Then the tour continues across the Channel to The Hague, Amsterdam, Cologne, and Bonn, Germany's present capital. After a trip up the Rhine by boat, the group visits Heidelberg, Kassel, East and West Berlin, and Flensburg. Stops in Denmark include Kolding, Ollerup, and Copenhagen. In Sweden, farms in the Helsingborg area will be visited. On July 3 the return trip via jet from Copenhagen will bring Future Farmers back to Washington in time for Fourth of July celebrations!

It will be 24 days filled with official visits to Young Farmers Clubs and many opportunities to talk with farmers and farm youth. Visits are scheduled to agricultural schools, farms, co-operatives, dairy plants, feed mills, research facilities, and many famed, historic, and scenic points of interest.

National Executive FFA Secretary Wm. Paul Gray and Mrs. Gray will lead the tour as official visits are made to FFA's partner organizations. State and American Farmers, vo-ag teachers, Young Farmers, state staff, and teacher educators are eligible to participate. A detailed itinerary is available by writing: FFA Tour, c/o The National FUTURE FARMER, Alexandria, Virginia 22306.

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December-January, 1967-1968
Fish farming is one of the oldest forms of agriculture and has been practiced in many parts of the world. Rotation of fish ponds bottoms with dry land crops dates back many generations in Europe and Asia. In the United States, trout are produced in the Rocky Mountains; catfish and buffalo fish in the Mississippi Delta; hait fish in the Southeast; and salmon in the Northwest.

Because fish farming is on the increase, Professor Philip J. Schaible of Michigan State University outlined the future of this kind of farming in a speech at a recent Distillers Feed Research Council conference. He pointed out that the future of mankind will depend on careful husbanding of every natural resource. Fishery resources are extensive, but 85 percent of this supply remains unused every year. Our harvest of 40 million metric tons of fish and fishery products—of which the U.S. catch is only 6 percent—provides only a small part of the food in the world today. This has led to a surge of interest in food production from the earth's waters.

Raising fish is as much a science as other types of farming. Careful water management and solid feeding practices are necessary for a profitable business. There are great differences between species of fishes, and this necessitates differences in their culture.

Fish farming begins at spawning time. Eggs are “stripped” from females when they are ready to lay. It is like milking a cow. A female yields from 500 to 5,000 eggs. Male trout are likewise “stripped” for sperm. Unless the eggs are fertilized by the male within 20 minutes they do not hatch. After hatching, the “sac fry”—only three-fourths of an inch long—live for two weeks or more on the “egg sac” as a food supply. The fish then attain the “advanced fry” stage and start eating. When they become an inch and a half long, they become “fingerlings.” After a couple of months, they become “parrs” and are then placed in outside pools. It takes a year and a half under the best conditions to produce trout big enough to sell.

Cold Water Fishes

It is comparatively simple to produce advanced fry of trout in large numbers with little loss. From the time the eggs are “eyed” until the young fry begin to feed, there is usually very little loss. But when the advanced fry first seek their food, heavy losses may occur.

Fingerling trout are held during their first summer in the troughs in which they are hatched. After they mature, they are transferred to small pools and thence to raceways with a sand or gravel bottom. Raceways provide an environment closely simulating that in nature. There is little difficulty in carrying the trout through the winter if they are graded carefully according to size to prevent cannibalism.

Since there has been an increasing demand for bigger trout for stocking purposes, fingerlings are held for longer periods, and large numbers of trout from 6 to 12 inches in length are planted each year.

Trout grow from an egg to marketable size (nine inches) in 10 to 14 months time. As they mature they are moved through connecting canals from one pond to another. Trout on a commercial farm live well and never know hunger. This tends to reduce cannibalism.

Small pools having a maximum depth of two or three feet with a full flow of pure cold water are used for rearing. If ponds are arranged in series, fingerlings should not be placed in those receiving the drainage from ponds containing older fish, since yearlings and broodfish often harbor parasites.

Circular pools can carry several times the number of fish that can be held in a long pool of the same volume of flow. There is nothing against which the trout can jump and injure themselves, and excrement collects in the center where it can be easily removed.

Salmon diets for hatchery use have been developed in Oregon in the form of pellets that are soft and moist. An extruder with different plate hole sizes produces excellent pellets with a minimum of labor.

Warm Water Fishes

Warm water fishes obtain much of their food via a “food chain.” Nutrients dissolved in the water cause an increase in microscopic plants and animal plankton which serve as food for insects, small fish, etc. These in turn become food for larger fish.

Warm water fishes produce several times as much meat per acre as good grassland. Fertilization of the water
Nitrogen, phosphorous, potassium, and lime are applied to the pond as is done with land to induce a heavy growth of semi-microscopic aquatic plants (phytoplankton). The so-called "water bloom" is fundamental for a complex "food chain" which leads up through organisms of increasingly complex organization to the level of animals large enough to be consumed directly by fish. The "water flea" is an early step in this chain and is vital food for young fishes.

Certain fish, such as the minnows and bluegills, use natural pond organisms more directly and serve as forage for some types of fish. The species employed are generally largemouth black bass and bluegill; crappie and other members of the sunfish family may also be used as the seed stock.

In the lower Mississippi River area, buffalo fish and catfish are complementary crops to rice growing. Rice fields are flooded for about two years to kill weeds, reduce damage from insects, and irrigate. The flooding of the land benefits the general condition, fertility, and structure of the soil. Thus, fish farming fits naturally with rice production.

Buffalo fish grow from less than an ounce to marketable size in two years. When fish are harvested, water is pumped out of the field until the fish are concentrated in a corner of the field. The fish are caught in nets, iced in boxes, and hauled to the market. One hundred buffalo fish per acre will attain a weight of five pounds each (saleable size) after two years in fertile water. Natural fish foods are increased by the addition of inorganic fertilizer. The big mouth buffalo fish is preferred to carp and has a flesh of pleasing appearance and good flavor.

Catfish culture is a recently emerging industry in south central U.S. Fifty million pounds will be produced this year. Potential production will be five to ten billion pounds per year. Pelleted feeds are fed to reduce pollution of the water. The feeding rate is based on the estimated pounds of catfish present from samples obtained by seining.

The main growing period for channel catfish is when the water temperature is above 70 degrees. Feeding is discontinued when the water temperature falls below 60 degrees. Fingerling catfish grow to marketable size (22 to 24 ounces) in 228 days if stocked in the spring; 394 days if stocked in the fall. A maximum production of over a ton per acre in 252 days can be obtained from a stock of 2,000 fingerlings. During the growing season, a food conversion of 2½ pounds of feed for each pound of gain is realized. There is reason to believe that a one to one ratio will be achieved in the future. A major difficulty in catfish farming is that these fish contract more diseases than buffalo fish.

Carp are grown on rice fields which are fertilized and flooded. The fry are introduced in the ponds and remain until the water is drained off for the harvest of the rice. The fish are held in ponds over the winter and placed in newly flooded rice fields the following year. Up to 1,500 pounds per acre are obtained.

Bait minnows are in demand to service the growing number of fishermen. A great demand exists in summer when the supply is limited in the northern states. The cost of raising bait minnows may be less than the cost of seining in distant waters, and a supply on hand at all times can meet demands.

An adequate water supply is of prime importance in selecting a site for rearing ponds. The water should be moderately hard, and the temperature should be high enough to promote rapid growth; pH should be slightly on the alkaline side. Springs and artesian wells are most desirable because they are clear and generally free from pollution. Creeks, lakes, rivers, or ponds are utilized if springs are not available.

Twice as many bait fish can be raised per acre of water by artificial feeding. Bait minnow farms are successfully established in south central states and Wisconsin. Ninety percent of the farm-raised bait minnows are sold live either as bait, fingerling stock, or adult fish for "feed" ponds.

New developments such as pulsed, direct current fields and air bubble screens may make it possible for new types of fish farming to develop in the future.

Fully integrated companies controlling every phase of fish production from hatchery to ultimate delivery may be in the offing.

Fish farming offers the opportunity to diversify agriculture. At present, it produces crops for which there is no surplus and actually improves the land for arable crops. As lake and river fish become depleted, the commercial fish farmers may become the main source of supply. In the present state of development, fish farming is generally profitable and, in some instances, gross income and net profit exceed that of other agricultural crops.

Photos, top right: A mobile pontoon barge used for hauling and setting farm seines. Second right: Seine stacked on pontoon barge. Third right: A 12,000-pound catch of channel catfish being beached. It was made in one haul of mechanized seine from 16-acre pond. At right: Part of a catch of buffalo fish taken with haul seine in 39-acre farm pond.
The American-International Charolais Assn. pays $1,000.00 to the exhibitor of grand champion steers of junior and open steer shows or to grand champion steers in on-hoof and carcass judging in any state fair or larger show where at least 50 steers of all breeds compete and where those grand champions were sired by a Charolais bull registered or recorded with the AICA. A $500.00 award goes to exhibitors of reserve grand champions in the same categories.

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Buying a Farm Without Money

(Continued from Page 14)

back a mortgage for the balance owed to the seller. Or, as we explained before, the buyer could refinance at that time, get the mortgage from a bank, and pay the seller in full.

If the sale also included cattle and machinery, then it is probably best to credit all payments over and above the interest towards the cattle and machinery. Then when the cattle and machinery have been paid off, the principal payments should be credited toward the real estate. When the cattle and machinery are fully paid and enough has been paid on the real estate to make the seller secure, the seller should give the buyer a clear title to the cattle and machinery.

For example, if the real estate were worth $30,000 and the cattle and machinery $20,000, the buyer should get clear title to the cattle and machinery when he has paid somewhere around $25,000. Then when he has paid another $10,000 and owes only $15,000, he should get a deed to the farm and give back a mortgage for the balance owed.

Or when he has paid $20,000 and still owes $30,000, he could undoubtedly get a conventional loan from a bank, using the real estate and machinery as security, and pay the seller in full at that time.

Amount of Payment. The payments usually are a fixed amount paid toward principal monthly or yearly together with interest on the unpaid balance. However, under this system, the payments will be much higher at the beginning of the loan because the interest payments will be so much higher than at the end. It is probably better to pay the same amount of money each month or each year with any excess above interest going toward the principal. Any lawyer or banker has a book of tables which would quickly tell you how much must be paid each month in order to pay interest and principal in the desired number of years.

If the buyer is a son or someone else close to the seller, the payments could be a monthly percentage of the milk check or an annual share of the crops harvested. When the payment is a percentage of the milk check, it is suggested that it not be more than 25 percent in order to assure the buyer of enough operating capital to efficiently manage his business. This type of payment assures the buyer of being able to meet his payments if the price of milk drops or if he has disease in his herd. Obviously, to protect the seller, the contract should stipulate a minimum number of cows must be kept or a minimum number of acres must be planted in cash crops.

Under our present tax laws, the Internal Revenue Service says that the contract must call for at least a 4 percent interest rate. In the event an interest rate is not specified in the contract, I.R.S. will assume an interest charge of more than 4 percent of the unpaid principal.
44—High Moisture Corn—This 32-page illustrated booklet discusses all facets of high moisture corn usage, including harvesting alternatives, various storage methods, economic factors, and feeding methods for beef cattle, dairy cattle, and swine. Utilization of high moisture barley and milo is also considered. Much of the material, including charts and graphs, was obtained from agriculture research studies. (Farmhand, Inc.)

45—Games and Guns—The Future Farmer who likes the outdoors and especially hunting and shooting will find this 16-page illustrated booklet of value. Provides valuable tips on hunting all kinds of game found on the farm. Suggests best time to hunt and best gauge and shot to use so that you can fit your gun to the game. (Mossberg)

46—Seed Technology Careers—Choosing a career is not easy. New careers in agriculture are born every year, and familiar ones change as knowledge expands. In many fields, you have to be “on the inside” to know about real opportunities. This illustrated 16-page booklet will take you “inside” and give you an idea of the opportunities in seed technology, especially seed analysis. Also outlines the education and training needed. (Association of Official Seed Analysts)

47—Oil In Depth—Fasten your seat belt. Shift to a forward gear and proceed with care. This 16-page four-color booklet will take you on an “in depth” tour through the areas of petroleum exploration and production. Petroleum is the biggest single product in world trade today and one that is in much demand by the farmer. (American Oil Company)

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December-January, 1967-1968
Cold Weather Starting Aids

(Continued from Page 13)

—low capacity and high capacity.

In general, low-capacity units should be connected while the engine is warm from operation. Then they help keep the engine from becoming as cold as the surrounding air.

Most of the low-capacity units are immersion-type electric heating elements. They replace the dip stick, one of the freeze plugs, or one of the head bolts. In each case, a convenient connection is provided for attaching the extension cord from the power outlet.

The high-capacity external-tank units can raise the engine temperature enough to permit easier starting if the unit is turned on an hour or two before starting the engine.

These units are essentially a small hot-water heater connected into the engine cooling system. A thermostat control prevents overheating.

The external-tank units are also available with burners which use regular engine fuel. This type heater is somewhat more complex, but it does maintain the correct cooling-system temperature even during light-load or idling operation of the engine.

Additional Cranking Capacity. If one battery won't start an engine in cold weather, a second, or "booster" battery can be used. Quickly-attached jumper cables are needed for the hook-up. The second battery should be kept well charged and in a warm room until it is to be used.

At zero degrees, a battery has only 40 percent of its normal cranking. This reduced capacity plus the extra "drag" of cold oil is the primary cause of many starting difficulties.

An inexpensive trickle charger can be connected to the battery for overnight charging. As its name implies, this device charges a battery at a very slow rate, but during a period of ten or twelve hours can restore a significant portion of a battery's cranking power. And, equally important, the flow of current through the battery helps keep it warm.

The trickle charger also provides a convenient means for keeping the extra booster battery at full charge.

Ideally, the voltage of the booster battery should be equal to that of the engine to be started. However, if both 6-volt and 12-volt engines are in use, it is usually inconvenient to provide two booster batteries. In practice, the 12-volt booster battery can be used in either case if proper precautions are observed.

For a 12-volt system, there's no problem. Just attach the jumper cables so that the terminals are connected positive to positive and negative to negative. Then, use the starter in the regular way.

For a 6-volt system, ground the same terminal of the booster battery as is grounded for the 6-volt battery. In most cases this will be the negative terminal, but some manufacturers use a positive ground connection.

Then, with the ignition switch "on," connect the opposite terminal of the 12-volt battery to the starting-motor terminal. Be sure to disconnect the booster battery as soon as the engine starts.

If the engine doesn't start after a few seconds cranking, don't continue to "grind" the starter. The low temperature of the starting motor permits it to withstand the increased voltage for a short time, but prolonged grinding will burn out the starter.

Other means of increasing cranking capacity include an electric heating plate installed between the battery and the battery holder. This 110-volt heater simply warms the battery to maintain its normal capacity.

There are several factors which should be considered in selecting a starting aid. For example, how low are the winter temperatures in your area, how many of these extremely cold days do you normally have each winter, how convenient is the device, and what is its relative cost? The more expensive, but also more convenient systems, would probably be justified if you plan to use the vehicle on many extremely cold days. Conversely, for occasional use during a few cold days, the less-expensive, less-convenient systems would probably be satisfactory.
This new Park Silager is designed for use with horizontal silos and to do any combination of feeding chores automatically. It will load, mix, and unload corn, haylage, or grass silage, all flowing or non-flowing milled feeds, and deliver any ration. (Agricultural Products)

U. Styling comparable to passenger car luxury, including optional bucket seats, is available in "Adventurer" pickups. (Dodge)

V. The Mez-Ur-Eze can be used on tractors, pickups, or combines to determine acreage covered or check slippage. (A. J. Detrishe)

W. New sabre saw can be used to trim limbs and branches; makes a smooth cut and can handle nine-inch limbs. (Black & Decker)

X. With Weco Washer in bulk tank, the pickup driver just connects drain hose and pushes a switch. (WeCo Milk-Veyor Corp.)

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Offer expires February 29, 1968

December-January, 1967-1968
Not too many years ago, four members of the Rawhide FFA Chapter in Lingle, Wyoming, enjoyed a break and could have been contemplating what the future might hold. Jerry Hill, second from the right in the photo above, was to travel east and become a professional football player. Jerry is the fine fullback of the Baltimore Colts in the National Football League.

Jerry came from Torrington, Wyoming, but attended high school in Lingle where he played basketball and was a star on their track team. He was a state champion in the high hurdles and discus throw events and also competed in the broad jump. Jerry played 6-man and 8-man football as his school did not have a regulation 11-man team. He went on to the University of Wyoming after graduating from high school and, without a high school reputation, he made the Freshman squad on Wyoming’s football team. He won a varsity spot as a Sophomore, and his fine play helped the Cowboys win the Skyline Conference title in all three of his years of varsity play. His play won him a spot on the 1960 College All-Star team.

Baltimore picked Jerry as a third-round draft choice for 1961, and his luck was to be all bad in his rookie season. He started off by twisting a knee, then broke an arm; and to top this, he then had a leg broken. The records indicate he ran the ball one time that year for a four-yard gain. Jerry came back in 1963 to prove he could play pro football and cracked the line 100 times, gaining 440 yards for an average of 4.4 yards per try. He also proved to be a good receiver, catching 22 passes for 304 yards and 6 touchdowns.

Professional fullbacks do many other things besides run the ball. They are called on to keep defensive players away from the quarterback and to lead interference for halfbacks on running plays. This means a fullback must be able to take physical punishment and, at 5 feet 11 inches and weighing around 210 pounds, Jerry is not big by pro fullback standards. He has proved to be of sturdy stock, and the defensive players around the league have given him the reputation of being one of the best blockers in the league. He is at his best at picking up the blitzers that crash through the line.

Jerry maintained his 4.4-yard average in 1964 by gaining 384 yards on 38 attempts. He also caught 14 passes for 113 yards and 6 touchdowns to help the Colts win the Western Conference title that year. He was a workhorse on the Colts team in 1965. His number was called on 147 plays, and he gained 516 yards rushing for an average of 3.5 yards. He caught 20 passes that year for 112 yards gained and 5 touchdowns. The injury bug caught up with Jerry again in 1966 when he broke a hand early in the season, but he came back to run the ball 104 times, gaining 395 yards for a 3.8-yard average.

Jerry Hill is the plugger the Colts call on for a sure gain when they need short yardage. He is a valuable man on their special teams. They use his devastating blocking on the kick-off and punt return teams. He also has good speed and is a sure tackler on their kick-off squad. The Colts are the only unbeaten NFL team after six games of this current season, and Jerry has played a big part in their offense. In the five years he has been in the Colts lineup he has gained a total of 1,739 yards rushing for a fine 3.9-yard average and has caught 61 passes for 547 yards and 17 touchdowns.

When the playing season is over, Jerry heads back west to Pine, Colorado, where he now lives and works with the forestry service during the off-season.

The National FUTURE FARMER
Parliamentary Procedure

By Dr. Jarrell Gray

Isn't it frustrating to be in an FFA meeting where things are happening rather fast, and you want to know about a parliamentary technicality but you are not sure how to find out?

Maybe this hasn't happened to you. But have you ever heard someone, after the FFA meeting was over, remark, “If I had known how, I would have done such and such”?

Knowing how to obtain information is essential if an FFA member is to participate effectively in a meeting. Gaining this information may be done by rising to a point of parliamentary inquiry.

The parliamentary information one may wish to obtain may have to do with the procedure for introducing business, rules governing a motion, action to take concerning a pending question, what motion to use, or effect of a motion.

A second to a parliamentary inquiry is not required. The inquiry cannot be debated or amended. Neither is it necessary for you to obtain recognition when rising to a point of parliamentary inquiry. A vote is not required. A member can interrupt a speaker to make an inquiry. This interruption is not considered to be a rude action since it is in compliance with proper rules of procedure.

If a member desires parliamentary information during the time another member is speaking, he rises, and, without being recognized, states, “I rise to a point of parliamentary inquiry.” The member talking should pause and allow the president to give attention to the inquiry. He attends to it by remarking, “State your inquiry,” which the member does.

If the inquiry needs immediate action, the president does so. If it is not urgent, he should permit the speaker to proceed and attend to the inquiry later.

There should be no cause for an FFA member not finding out the parliamentary information he desires. The manner of asking is simple.

There is an old proverb to the effect that “it isn’t disgraceful to be ignorant, but it is disgraceful to stay that way.”

Let’s learn parliamentary procedure!

St. Johns, Michigan
Q. When a recount of a vote is desired, when is an appeal to the chair used instead of a division of the assembly?

Glenn Schultz
A. An appeal is never used to determine the accuracy of a vote. A division of the assembly is used. An announcement of a vote, as well as an appeal to a parliamentary inquiry, are not decisions of the chair and, therefore, cannot be appealed.

Macon, Missouri
Q. I would like to know if it is correct for the president to maintain order during an FFA meeting?

Richard Clarke
A. The president would be entirely correct in calling members to order in a chapter meeting. He is in charge of the meeting and as such has the responsibility of seeing that members behave themselves in such a manner that business may be conducted.

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 this column in the next issue.


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December-January, 1967-1968

41
Teacher: “What is the definition of nothing?”
Zek: “Nothing is a balloon with the skin taken off.”

Donald Riley
Mayfield, Kentucky

“Now, now,” said the motorist. “Keep calm. I'll replace your cow.”
The farmer stopped suddenly, looked him up and down, and then said,
“Shucks! You can't give milk.”

Bob Mitchell
Roseburg, Oregon

“Did you give your nickel to the Sunday School?”
Billy: “No Mom, I lost it.”
Mother: “That makes three Sundays in a row you've lost your nickel.”
Billy: “I know, but that kid's luck can't last forever.”

Rex Wiggins
Temple, Texas

A new arrival was stopped at the pearly gates. “I'm sorry,” explained St. Peter, “but you told too many lies during your time on earth. I'm afraid you'll have to go to you know where.”

“Ugh come on now, St. Peter,” begged the new arrival. “Have a heart. You were once a fisherman yourself!”

Lynn Westmoreland
Sidney, Arkansas

Boy: “If you don't go steady with me, I'll die.”
Girl: “I refuse.”
Sure enough 85 years later he died.

Jerry Stout
Hiddenite, North Carolina

The city banker was visiting the country.
The banker, nodding toward a figure in the farmyard, said, “I suppose that's the hired man?”

Johnny Sherrer
Bay City, Texas

Lab teacher: “What does the formula HNO3 stand for?”
Pupil: “Let me think. I know what it is. It's at the tip of my fingers.”
Lab teacher: “Well hurry up and get it off, because it is nitric acid.”

Ray Lynn Slack
Englewood, Tennessee

A tourist from Kentucky and a Texan were chatting about their home states.
The Kentuckian boasted, “Back home in Fort Knox, we've got enough gold to build a fence around the whole state of Texas.” Whereupon the Texan calmly stated, “Okay. You build that fence and if we like it, we'll buy it.”

Freddie Parrish
Roundhill, Kentucky

About the only thing free of charge these days is a rundown battery.

Roy Lewis
Palmyra, Virginia

Charlie, the Greenhand

“This was taken at the FFA Convention with my new camera—before I read the operating instructions.”

Cassandra Murphy
Pollocksville, North Carolina

The National Future Farmer will pay $1.00 for each joke selected for publication on this page. Jokes must be submitted on post cards addressed to The National Future Farmer, Alexandria, Virginia 22306. In case of duplication, payment will be made for the first one received. Contributions cannot be acknowledged or returned.
That's what the girls are calling the swinger with the back-seat stereo, electric banjo and portable TV—all hooked into the car battery he forgot to have checked at the American Station. The name comes from the sound the starter makes trying to turn over after the party's over: a grim "GRUM!" Moral: don't be a "GRUM." Charge down to your American Oil dealer, the guy who pampers your car as if it's just won the Monaco Grand Prix. Just so he can say, and mean it...

You expect more from American—and you get it!*

* 1967, The American Oil Company • Trademark
The good life — how to enjoy it more.

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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 beginning! (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 made our combine controls for cylinder speed, reel speed and header height all standard equipment.

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