Every Christian should make the best possible preparation for a life of effective service for his Lord.

If you sincerely want your life to count for God, the "World's Most Unusual University" can train and equip you for successful service.

THE TIME TO GET YOUR BOB JONES UNIVERSITY TRAINING IS NOW.

To neglect or postpone your education for some present inducement, whether it be a job that "pays good money," a desire to "get married right now," or anything else, is to fail to put first things first.

BOB JONES UNIVERSITY
GREENVILLE, SOUTH CAROLINA

Music, speech, and art without additional cost above regular academic tuition. Institute of Christian Service, Academy, and seventh and eighth grades in connection.

Graduate School of Religion
Graduate School of Fine Arts
Farmers you look to as leaders look to Firestone for farm tires

Farmers around Joplin, Montana, look to David James as an energetic pace-setter. When it comes to producing huge grain yields in the rugged northern-border country, Mr. James really knows his business. And for this he's recognized as one of Liberty County's leading ranchers. He also finds time to play a leading role in vital state affairs.

Mr. James's brand of success calls for good farming practices and the right equipment to keep thousands of acres producing at peak efficiency. From long experience he knows he can always depend on Firestone tires.

In his own words: "We use big tractors and big equipment in this part of the country, and it takes good traction to make the most of them. Firestones do the job best. They can really take a beating!"

**Firestone... First in Farm Tire Needs**
EDITORIAL CONTENTS

About the FFA
A Message From Your Past  
National Officers  10  Hafen Now Lawmaker  18
Mr. FFA—Lyle Carpenter  11  FFA Director Takes New Post  20
Try An Egg-O-Rama  16  FFA Leader Retires  20
Conner Elected Ag Commissioner  18  Farming—because he likes it!  24

Features
A Movie to See  18  Agriculture Today  32
Something New  20  Figure Your Cost Before
Cartoon Contest Winners  20  Buying Machinery  36
Agricultural Outlook for ’61  23  Blackie of Antelope Gap  38
Be Ready for College  25  There’s Gold in Your Woods  42
Washington the Farmer  26-27  History of the Holstein  44
A Checklist for Farm Management  30-31  Winter Tractor Tips  54
Livestock Judging Contest  57-59

Sports and Fiction
Safety on Horseback  40  The Titan Tractor  46
A Young Man Chooses  50  Sportrait  60

Departments
Your Editors Say  6  Reader Roundup  14
Looking Ahead  8  Free For You  56
Photo Roundup  12  Jokes  62

OUR COVER (Photo by Ralph Woodin)—His future in farming and the
strength of his belief in that future are reflected in the face of Ohio
Future Farmer, Dennis Woodruff. These twin lambs will make a healthy
addition to his supervised farming program.

MAGAZINE STAFF

EDITOR, Wilson W. Cairns

ASSOCIATE EDITOR  
Howard E. Carter

ASSISTANT EDITOR  
Harmer McQueen

EDITORIAL ASSISTANTS  
Isabella M. Binge  Jane M. Lawson

PROMOTION ASSISTANT  
Jim Hashurst

BUSINESS MANAGER, V. Stanley Allen

RECIPIAL, ADVISING MANAGERS

John C. Poplin  Lewie Cuffey

ADVERTISING ASSISTANT  
Roslin N. Pazzato

BOARD OF DIRECTORS

CHAIRMAN, W. T. Spanton

MEMBERS  
H. F. Davis  E. J. Johnson
W. E. Gare  E. F. Naugher
H. N. Hauser  Robert B. Taylor
Walter Jacoby  Harold B. Taylor

EXECUTIVE SECRETARY  
Wm. Paul Gray

DIRECTOR OF PUBLIC RELATIONS  
John Parrer

NATIONAL OFFICERS

PRESIDENT  
Lyle Carpenter, Colorado

VICE PRESIDENTS  
Teddy Ross Caruth, Texas
Nathan K. Cocke, Michigan
John Greer, Utah
Jerome Donovan, Ohio

STUDENT SECRETARY  
Ronald J. Cook, Michigan

The National FUTURE FARMER

FEBRUARY-MARCH, 1961 • Vol. 9, No. 3
Big news for farm youths everywhere!

Quality hay ...the one-man way!

...with the New Holland Hayliner: World's most advanced baler!

From dream to exciting reality—haymaking by ONE man—with a New Holland Super Hayliner 69 and a tested, proved Bale-Thrower! "Airlifts" bales from Hayliner to wagon. Scientifically designed for the mechanical handling of bales up to 30" long!

The Hayliner 69 brings you truly scientific, high-capacity baling! Many new conveniences: Tractor-Seat Controls ... the gentle, measured feeding of FLOW-ACTION ... a new plunger on rollers ... Metermatic bale tension control ... flared pickup for easier straying on windrows ... sealed precision bearings ... sleek, modern design—many more! And when you add a dependable New Holland Bale-Thrower, baling becomes a ONE-man breeze!

Let your dealer show you the low-cost "69" or one of the other models of the "60" series—the family farm favorite, the Super 68 or the Hayliner 67—easiest FLOW-ACTION baler to own!

Compare, feature for feature ... you'll see for yourself why the New Holland Hayliner is first choice with farm youths everywhere! New Holland Machine Company Division of Sperry Rand Corporation, New Holland, Pa.

Exclusive Telescoping Flow-Action is the secret of New Holland Hayliner super-capacity! The exclusive telescoping feeder bar with aluminum tines retracts in normal windrows, extends in heavy ones — takes any windrow in stride! Virtually clog-proof!

New Holland
"First in Grassland Farming"

February-March, 1961
MANY OF TODAY’S so-called necessities were luxuries only a few short years ago. And we tend to take them for granted in our daily lives. But wait until the television goes on the blink, electricity fails, or the waterpipes freeze, and all bedding breaks loose.

Our nation is one that is blessed with a surplus of farm products. And we tend to take them for granted, too. But will we always have them? The answer is no—unless more young men stay on the farm to produce the food and fiber needed by our ever-growing population. And reports from various parts of the country indicate they are not.

Some predict that by 1965, 8.3 percent of our labor force will be on the farm. But we do need that 8.3 percent! And they must be trained to meet the growing complexity of modern farming. Looking still further ahead, will we have the number needed on the farms ten, fifteen, or twenty years from now? Early census figures indicate that we may not. As of this writing, the national average age of farmers was not available from the 1959 census. But in Virginia, it is 54. The national average should be somewhere close. Now this is not an old age by any means, but it does indicate that too few young men are in farming as an occupation. While there is no immediate danger, it is entirely possible that the well of farm surpluses may run dry in our lifetime—unless more young men stay on the farms. Farm work is hard and often discouraging. But farming also has its advantages. Consider them carefully before deciding your fortune lies in the city.

National FFA Week is from February 18-25. How will it be celebrated in your community? There is a host of tried and proven ideas available for your use. Here are some of them that other chapters have found successful. Special articles in the local paper and some even get out special editions. Many business men use congratulatory advertisements during this week. (Don’t forget a thank you letter.) Special radio programs, assembly programs in school and with civic and farm groups: FFA Week Proclamation by the mayor, and a goodwill visit by chapter officers with local businessmen.

Some like the idea of having all chapter members wear official FFA clothing—jackets, ties, T-shirts, or pins. Others make use of the publicity materials furnished at cost by the National FFA Office through the Future Farmers Supply Service. Your advisor has received a special brochure on this in the mail. Among the items available are FFA Week posters, seals, editorial cartoons, place mats, and other promotional materials.

As experts of FFA Week is every chapter’s opportunity to put the spotlight of public attention on the Future Farmers of America. Make sure your battery is charged!

About the time you are reading this, your National FFA Officers will be on the first leg of their annual Good Will Tour. They will leave from Washington, D. C. on January 28, immediately following the January meeting of the FFA Board of Directors and Student Officers. The tour this year will take them up the eastern coast to New York and on into New England. Then they will swing westward to Akron, Cleveland, Detroit, Chicago, Racine, Milwaukee, Minneapolis, Quincy, Moline, and other points. Three of the officers will end the tour in Kansas City. They will be representing you on this trip—the new generation of farmers. Leaders in business and industry will host the visiting officers as they tell the vocational agriculture and FFA story. At the same time, the officers will learn of many of the problems facing business and industry.

In some states, the state officers will take a good will tour at the same time the national officers are on their tour. A few chapters have done the same thing in their local areas. Those who have tried it seem to like it. It may be an idea your chapter can use.

Wilson Carnes, Editor
Danforth Farm Youth Center is devoted exclusively to research to help youths with their livestock projects.

R. J. Lang operates a 500-acre farm near Wheelersburg, Ohio, on which he has a high-producing Holstein herd of 75 cows, raises 140,000 pounds of broilers a year and does extensive truck gardening.

"Farmers of Tomorrow' will find inspiration at Danforth Farm Youth Center"

—says R. J. Lang, Wheelersburg, Ohio

"Thousands of tomorrow's farmers will be more successful," comments Mr. Lang, "because of the instruction and inspiration that today's farm youths get when they visit the Purina Research Farm and the Danforth Farm Youth Center.

"The Youth Center is different from the rest of the Research Farm Units in its objectives. While other units are devoted to helping get better results for practical farming, the Youth Center is devoted to research that helps boys and girls raise animals with prize-winning bloom. Also available there are classes in hogs, beef cattle, lambs and dairy heifers, for those who wish to have their groups do practice judging."

Danforth Farm Youth Center, on the Purina Research Farm, Gray Summit, Missouri, is a memorial to William H. Danforth, founder of Ralston Purina Company.

Agricultural Leaders can arrange to visit the Purina Research Farm with their groups by contacting the nearest Purina Dealer or Purina Salesman... or by writing Earl A. Sindecuse, Director of 4-H and Vocational Agriculture Service, Ralston Purina Company, Checkerdboard Square, St. Louis 2, Missouri. If it should be necessary to stay overnight, special rates can be obtained at a St. Louis hotel.

BUILD YOUR CHAMPION THE PURINA WAY

February-March, 1961
new star of the "WESTERN LOOK"

LEE WESTERNER
as worn by
GUY WEEKS, champion rodeo cowboy

Fast becoming a favorite on any scene,
for those who like the Western look —
THE NEW LEE WESTERNERS.

Pants are slim-line...sleek and comfortable — cut over famous LEE RIDER patterns. Jacket is form-fitting and full-shouldered for the real outdoors-man.

Westerners fabric is LEE WEST- WEAVE...sturdy, hard-wearing material in Sanforized, polished cotton that's guaranteed all the way.

Jacket $5.95
Pants $4.95

Lee Westerners are real popular! If your store doesn't have your size at the moment, ask for a special order.

THE H. D. LEE CO.
GENERAL OFFICES
117 W. 20th ST., KANSAS CITY 41, MO.

Looking Ahead

NEW DRUG FOR TURKEY SINUSITIS

Spiramycin, a new antibiotic drug, was effective in clearing up cases of turkey sinusitis in Ohio tests. Turkeys with sinusitis have greatly enlarged sinuses, even to the point of obstructing vision and feeding. Spiramycin was injected directly into the sinus cavities. At the 100 milligram level, more than 90 percent of the afflicted turkeys recovered.

PROMOTION CAN SELL POULTRY MANURE

When properly pelleted, packaged, and promoted, poultry manure can open up new markets for poultry producers. Researchers at the University of Delaware are processing poultry manure into a marketable form by pelleting with a standard pelleting machine. So far, the 25- and 50-pound bags have sold well. But to create a sizable market, an active promotion campaign would be necessary.

CHANGES AHEAD FOR SHEEPME

Sheep of tomorrow may not have fins or sit low on the ground like today's cars but they will be as different from today's model as the model T from the 1961 cars. In the past, the sheep business has been designed to use cheap land and cheap labor. George Litton, head of VPI's animal husbandry department, says tomorrow's sheep business will have to exist on high-priced land with high-priced labor. This means the sheepman will have to be a good businessman to make a profit. He sees the time when 250 sheep will be kept on 50 acres, will breed and settle out of season, and will have twins and triplets almost consistently.

A NEW TWIST IN HAY FEEDING

The backbreaking job of breaking bales before feeding may soon be a memory of the past. Researchers at Pennsylvania State University have tried feeding hay tied with a rayon-cellophane baling twine. The sheep used for the tests had no trouble digesting the twine and no harmful after effects were noticed, according to a report presented at the American Society of Agricultural Engineers meeting in Memphis, Tennessee.

FIGURE PROTEIN SUPPLEMENT COST PER POUND

Read the tag before buying high protein feeds. If a protein supplement such as cottonseed meal is listed as 41 percent, this means there are at least 41 pounds of crude protein in 100 pounds. Now figure your protein cost per pound. If 41 percent cottonseed meal is selling for $3.00 per hundred, divide $3.00 by 41 (the pounds protein per 100 pounds). The answer is 7.3 cents per pound protein. If 22 percent protein range-cubes are selling for $2.70 per hundred, divide $2.70 by 22 and you find the protein would cost you 12.3 cents per pound. It's easy to see you would be better off to buy cottonseed meal. Before you buy protein supplement, do some figuring—it may save you money.

BRIGHT LIGHTS UNVEIL PLANT GROWTH MYSTERIES

In a brightly lighted small room at USDA's Beltsville, Maryland, Plant Industry Station, scientists are learning some dark secrets about plant growth. So far they have found that lobolly pine, for example, grows six times as fast as normally when exposed to light 24 hours a day. On the other hand, they have learned lettuce seeds need only one thousandth of a second of light to germinate. Experiments under such conditions lead to the selection of the proper crop or crop variety for a particular region. New plant strains can be made quicker, too. Because a plant growth room provides freedom from day-night and seasonal cycles, scientists are able to grow as many as six generations of plants annually.
FARM-MADE CEMENT MIXER SAVES TIME & HARD WORK

Lloyd Stauffer, whose farm is near Greene, Iowa, needed a very small cement mixer for pointing up concrete around the barn. So, he built the one shown here. His materials consisted of an old Texaco Universal Gear Lubricant drum, pipe and angle iron for the frame, and bearings from a junk pile. Aside from the 1/2-horsepower motor, the whole job cost less than $5.

To lubricate their cement mixer and other equipment, Lloyd (left), and his father, Vic, use Texaco Products supplied by Texaco Distributor Darrell Davis (right). These progressive farmers prefer Marfak lubricant. They know that Marfak forms a tough collar around open bearings. It won't drip out, wash out, dry out or cake up.

The motorized field equipment used by this father-and-son combination includes two tractors and a truck. The Stauffers have used Texaco Products for more than five years. They know it pays to farm with Texaco Products.

FIRE CHIEF FOR HIM!

H. Lee Cherry (right) farms 350 acres in the rich tobacco area near Washington, North Carolina. Here he is getting a delivery of Texaco Fire Chief gasoline from Texaco Distributor H. G. Winfield. Lee prefers Fire Chief because it delivers superior fire-power and draw-bar pull for low-cost operation. The reason is that economical Fire Chief is Climate-Controlled for altitude and seasonal temperatures. He, too, knows that it pays to farm with Texaco Products.
A Message From Your Past Officers

This analysis of the 1960 State FFA Conventions was prepared by the 1959-60 National FFA officers. It appears here as a guest editorial.—Ed.

Each national FFA officer has had an opportunity to see a number of State FFA Associations in action at their state conventions. Forty-seven states were visited this year by one or more of the six national officers. As a result of our visits we, naturally, made many observations and comparisons. We were impressed and even inspired in our visits to some states, whereas, in others we were disappointed and even amazed at the loss of perspective in others. The ideas listed below represent the thinking of all national officers of 1959-60.

We officers are convinced that the state convention of any state, regardless of its size, can be of profound influence in the progress and strengthening of the Future Farmers of America. Indeed, well planned and properly executed state conventions are of tremendous importance. It is here that state associations set the pace, create the proper image of the FFA, and bring to the eyes of the public the activities and accomplishments, as well as the ideals, of the finest state chapters. As individuals, we desire to see our state conventions be the envy of the nation and have every state association strive to accomplish this.

We national officers would be naive if we said that every state does a splendid job of holding a state convention. A great many of our state associations are certainly to be congratulated on the great job they are doing. On the other hand, we are convinced that many states have failed to realize what elements constitute the true objective of a state convention. It is appropriate that we should examine these objectives as we student officers see them.

We are convinced that there are tangible, true objectives which can be properly identified. The fitting way for the state association to give the members an opportunity to execute business and have a voice in the affairs of the FFA, is to assemble them in convention. Therefore, the first objective of any state convention should be to hold stimulating and important business sessions that are meaningful to the FFA members. Certainly no program of events should be all business, but we have observed that where the members of the FFA could debate, discuss, and vote on matters of importance, there was a real spark of interest and enthusiasm that poured over into all other phases of convention activities. Let us not forget that good business sessions are a source of priceless leadership training.

The second purpose of holding the state convention should be to recognize those members who have done commendable work in vocational agriculture. We do not imply that all award winners can be brought to the front for recognition, but, by all means, the outstanding winners should be. By raising Chapter Farmers to State Farmers, or presenting the National FFA Foundation Awards, or other state awards, along with recognizing superior chapters and outstanding advisors, we can accomplish two important things: (1) We are able to let others outside vocational agriculture and the FFA learn what Future Farmers are doing and accomplishing in farming and leadership; (2) And more important, we are recognizing outstanding individuals, which in turn will provide a source of inspiration for other FFA members to set goals for themselves and work harder to accomplish these goals. We national officers have been tremendously impressed with the manner in which some associations have held their public speaking and parliamentary procedure contests before the ENTIRE convention body. This practice has much the same effect as a proper award program. Through this method, in addition to the tangible purpose of recognition and creating an incentive to be a good FFA member, it is priceless as a means of leadership training.

The third objective should be very easy, yet it is probably the most overlooked. The state convention program and proceedings should be a rich source of information about chapter activities, and in many cases are the only time that what successful chapters are doing. Many states use excellent means of informing the members and chapters about what the state associations, and even the national organization, is doing. We have observed states using excellent exhibits to tell about FFA activities. Others use very interesting and informative group discussion methods to exchange ideas. It is amazing how much of this information will get back to the local chapter and be effectively used by the members. The states that had outstanding and meaningful conventions made certain they supplied their chapters and members with useful information and ideas about the FFA.

We have been talking about the tangible objectives; those objectives that can be put down in black and white and included in a written convention program. We national officers believe that any state having a worthwhile FFA convention has the above three objectives clearly defined through its planned program and FFA activities for the members. We realize that no two states are alike in their size, facilities, membership and opportunities and, naturally, each state must adjust to its own particular situation. Unlimited attendance might be a wonderful thing in one state, while circumstances in the other might make it prohibitive. A state convention meeting on a college campus would vary a great deal from one state to another; the same holds true if the meeting is held at a state camp, civic auditorium, or at a large hotel. Each association will have its own ideas and should use them to the best advantage for the FFA, but the important fact is to consider the objectives of the state convention when planning and conducting the program.

During the past year, we national FFA officers have talked to thousands of FFA members, hundreds of state officers, and advisors. We have observed many different kinds of FFA activities at state conventions and we feel that we did not visit one single state convention that was beyond improvement. Therefore, it is our belief that there is the W! for every state association to re-evaluate its convention.

It is tragic, indeed, when a state prides itself that it has not changed its program or proceedings once in twelve years. Yes, we have visited state conventions where more pride was taken in "who the state sweetheart was" than "who the State Star Farmer was." We have seen much greater emphasis on planning a fish fry on the lake, than seeing that the sessions were not too long and were worthwhile. Believe it or not, we observed the election of state officers slighted in order to give more time to hear the string band play. We national officers believe the Future Farmers came into existence for the development of good Future Farmers, outstanding rural leaders, and for training young men in the value and practice of co-operation when they become adult citizens of America. We firmly believe these things cannot be accomplished if the importance of the convention business session is not recognized, or the objective of the meeting is "choosing a sweetheart," or having a "hanging up string band concert," or having that all-important fish fry. We agree that all work and no play "makes Johnny a dull boy" but our point is that it is too often undone.

The State FFA Convention can go a long way toward helping the Future Farmers of America accomplish its true purposes. This can be done when "we put first things first." If we will plan the type of business sessions that are needed to fulfill the needs of the individual and the chapter, include a recognition award program in the right attitude and proper manner, and provide means to give good ideas and information to members, we will then have a solid foundation for the convention, regardless of size. We national officers feel that the above are essentials of a convention that will yield a powerful hand in making the FFA better and stronger on the local, state, and national levels.

Respectfully,

Jim Thomas, Kenney Earl Gray, L. G. (Jack) Crews, Dean Hoffer, Richard Poor, Joe Hughes, Jr.

The National Future Farmer
Mr. FFA

LYLE CARPENTER . . . president

The hopes, plans, and high ideals of the FFA have been placed in his capable hands. He is "ambassador of goodwill" for all Future Farmers.

LYLE CARPENTER, National FFA President, is well prepared to serve you, the FFA, and the interests of American agriculture. This 19-year-old diversified farmer from Yuma, Colorado, has a long list of leadership activities. They range from junior treasurer of his FFA Chapter five years ago to one of Colorado's four representatives to President Eisenhower's White House Conference of Children and Youth in 1960.

His farming record goes back many years beyond that. Lyle decided he wanted to be a farmer at the age of seven. That year, his dad gave him a Jersey milk cow for helping with the chores. Lyle proved to be a smart businessman. He milked the cow, raised her calves, and then sold them. He put the profits in the bank as he was looking ahead to the time when he could start a herd of beef cattle.

"Upon entering vocational agriculture in high school, I received a gift from our pig chain for a swine project," Lyle says. "Although I only made $82.40 profit that year, I did add three gilts to my breeding stock. The next year, I bought four registered beef cattle with the money I made selling the calves from my milk cow."

This was the foundation he built on. The next year, Lyle rented land from his dad to raise corn and grain sorghum. All profits were put back into breeding stock and equipment. In January of 1959, Lyle signed a partnership agreement with his dad on 420 acres. The agreement called for Lyle to hire the use of his dad's machinery and do half the work. The partnership is still in effect, but slightly changed. Lyle now provides at least two-thirds of the labor and uses Mr. Carpenter's machinery at no cost. Each partner gets one-half of the profits.

Lyle owns an additional 160 acres. He borrowed money from his dad in 1959 to buy the land and install a gated-pipe pump irrigation system. The money was borrowed at six percent interest. It was a big investment but Lyle says it will give him room to expand his farming operation.

The farming program in 1960 was big compared to that of his first year. He had 30 hogs, 38 beef cattle, 160 acres in irrigated crops, and 360 acres in dryland crops. These crops were: alfalfa, corn, oats, sorghum, wheat, and rye. He also had three dairy cattle.

Judging contests and livestock shows are taken in earnest by Lyle. He has won 34 ribbons showing swine alone at local and district fairs. FFA livestock and crops judging are also right down his alley. Awards here have been first, second, third, superior, and excellent.

In June of 1960, when Lyle applied for the American Farmer Degree, he figured his net worth at over $11,000.

Leadership is where Lyle really stands out. His first office in the Yuma FFA Chapter was junior-treasurer in 1955-56. A year later he was elected President of the Chapter and in 1959 was elected State President. Last year, he was President of his Freshman class at Colorado State University in addition to serving on several college committees.

Lyle has been a delegate, chairman, and master of ceremonies at many local, district, state, and national FFA events. In 1958 he served on the Convention Committee at the National FFA Convention. He served on the National FFA Nominating Committee in 1959.

F. D. Hanna, Assistant Supervisor of Agricultural Education in Colorado, had this to say about FFA's President: "When Lyle was a sophomore in high school, he was an official delegate to the State FFA Convention. It was at this time that I first recognized his leadership ability, for at that early age, he stood out, even in a group of recognized leaders. I can honestly say that in my opinion Lyle is the most outstanding young man in Colorado today."

Lyle plans to return to college after his term as National President is over. The many speaking engagements that accompany his new title have already started. His travels will take him about 50,000 miles this year—and everywhere he goes he will carry the message of vocational agriculture and the FFA.

February-March, 1961
Several states hold goodwill tours. Here, Wisconsin officers visit the Chilsen timber harvest forest at Merrill.

**Photo**

**Roundup**

Clarkston, Washington Chapter distributed 3,400 pieces of material during National Fire Prevention Week.

Berton Frye, Danville, Vermont, named regional Star State Farmer at Eastern States Exposition, gets a heifer. Neil Rankine, Sears Foundation, left; Governor Stafford, Vermont, at right.

"Old McDonald's Farm" was a co-op exhibit by Washington FFA chapters at the Southwest Washington Fair.

Collective membership effort won these chapter trophies provided by Ag Teachers' Assoc. at Nebraska State Fair. Winners were: Kearney, sheep; Waverly, beef; Plattsmouth, swine; Harrison, dairy; West Point, farm mechanics.

Edward Miller grew the beef and served it too. The Petisville, Ohio, FFA member serves L. B. Oxborough, Swift & Co., left, and W. J. Norris, United Food. Swift bought Ed’s steer for United who featured it in their cafeteria.

The National FUTURE FARMER
get easy, instant starts for

JOBS THAT CAN'T WAIT!

Spring planting is always a race against time and the weather. It's another of those farm tasks that just can't wait.

When every minute counts, you want a set of spark plugs you can count on. That's why it pays to switch to AC Fire-Rings. They're ready for instant starts in any weather ... maintain their full-firing power under any load, around the clock, until the job is done.

The reason is simple. AC Fire-Rings are ignition-engineered for the toughest farm jobs. They're performance-proved in millions of hours of tractor and implement operation.

To assure top tractor performance this spring, install a set of AC Fire-Rings now and replace every 250 operating hours.

AC Spark Plug - The Electronics Division of General Motors

AC Fire-Ring spark plugs
Power AChievers for farm machinery
You're on your way... when you ride a trusty Triumph!

Waynesville, Illinois
I enjoy The National FUTURE FARMER Magazine. It gives me a chance to see what other Future Farmers do in other states.

Joseph Vincent Maxwell
Sikes, Louisiana
I have received the rod and reel that I won in the 1959 National FUTURE FARMER Fishing Contest. I was very happy to receive this prize and I am sure I will really enjoy fishing with it. I read this Magazine and think you are doing a great job for the Future Farmers of America.

I would like to thank everyone who has made the 1960 Fishing Contest possible and I would like to see you continue this contest next year.

Risshel Calhoun
Baytown, Texas
Please send me the free booklets I have indicated. I am a member of the Baytown FFA Chapter and these booklets will be quite informative to me concerning my projects. I also want them to add to my personal agriculture library. I enjoy the Magazine and would be willing to pay more to receive it monthly.

John Fowler
Morrilton, Arkansas
I have tried all over town to find some monocalcium phosphate but have failed to find any. However, I have found a form of diacalcium phosphate and I was wondering if this would work as well in my experiments with hydroponics.

I am doing some experiments with plant hormones also. I was wondering if you knew of any hormones that I could use to make seedless fruit or thornless vines.

Edward Williams
Let's let a specialist answer your question. We're referring your letter to the horticulturist at the University of Arkansas.—Ed.

Fayetteville, North Carolina
Each year that the Magazine has been published, Central Chaptet has been one hundred percent in subscribing. Each member looks forward very much to receiving his copy.

The Magazine is well planned for high school boys because of its wide scope of interest.

Every member at Central is one hundred percent FFA minded and each one is striving to make this school year one of the best in our Chapter history.

We hope as you see that the Magazine will increase in size and popularity.

W. S. Boyd
Advisor

Escalon, California
I just received my latest copy. I have truly gained much in knowledge, as well as keeping up on other FFA activities throughout the United States. This Magazine is an asset to our organization and an inspiration to others. Keep up the outstanding job as you have done in the past.

Dick J. Pereira
Torrington, Wyoming
I have been getting The National FUTURE FARMER for three years now. I read and enjoy everything that is printed in them. Every issue is a little better than the last one.

Clark Kelly
Denison, Iowa
I am sending for two free booklets you are offering. I am a dairy and crop farmer. Any information dealing with dairying goes into my bookcase.

I enjoy reading The National FUTURE FARMER very much. Too bad it isn't published every month. Dad and I read it over very carefully with interest.

I am a member of the Denison Friendly City Chapter. I graduated in 1959.

Dewey Reis, Jr.
Knoxville, Tennessee
Please find enclosed $5.00 in coin to cover my subscription for another year. I have been a subscriber for two years. I enjoy the very interesting articles featured in each issue.

Roy Mastroson
St. Paul, Minnesota
I have read with a great deal of interest the article I received for money for today's farmer. (December-January issue.) This is a well-written, informative article. However, the section in regard to interest rates charged by production credit associations is not wholly correct.

Production credit associations obtain their funds through the Federal Intermediate Credit Banks who issue debentures in the market. The cost of these debentures varies, depending upon supply and demand of money. The ultimate interest rate charged by production credit associations to their members depends upon the interest rates in the market, and they are not established by the government, as set forth in your article.

Since this is a basic matter in the Production Credit System, it was our feeling it should be called to your attention.

B. L. Hassenstein, Vice President
Federal Intermediate Credit Bank of St. Paul

The National FUTURE FARMER
CHOOSE YOUR JOB TRAINING COURSE—BEFORE YOU ENLIST

Exciting work—if you can get it. To land a job in the Missile field, you need training. The kind of training you get through the Army Graduate Specialist Program.

Only high school graduates are eligible to apply. If you qualify (by passing aptitude and physical examinations), this program lets you choose your job training course before you enlist.

You can select from 107 different courses. Guided Missile Electronics is one possibility. There's also Radar Repair, Track Vehicle Maintenance, Personnel Administration, Engineer Equipment Maintenance, Medical Laboratory—to name a few. (Your Army recruiter can give you a detailed description of any specific Graduate Specialist course.)

Army school courses are practical. You learn by doing. The job training you absorb can pay off for the rest of your life.

If you meet the qualifications, you receive an official letter guaranteeing your assignment to the Graduate Specialist course you've chosen. You receive the letter before you enlist. Without obligation.

February-March, 1961
Try an

Egg-O-Rama

... for egg promotion and fun

By Frances Altman

FACED WITH low egg prices, the rural community of Broken Arrow, Oklahoma, decided to do something about it. The result was the Nation's first "Egg-O-Rama," held in March of 1960.

Broken Arrow is located only 20 miles from Tulsa and is primarily known for its broiler and egg production. Local producers felt they should take steps to get people to include more eggs in their diet.

The Egg-O-Rama was a smashing success—partly because of the help of the Broken Arrow FFA Chapter. Future Farmers joined wholeheartedly in the project and some even helped cook the eggs.

Dozen of door prizes (eggs, naturally) were given away to the local citizens who attended. Home demonstration agents passed out recipes and samples of egg dishes. A team of poultry experts from Oklahoma State University was on hand to answer technical questions and to display new egg handling equipment.

Future Farmers hold their own in the five different egg cooking categories. Ronnie Metzer won a second place award with his concoction—a non-alcoholic eggnog. Joe Lester placed second in another category with his breakfast dish of corn meal mush.

The grand finale of Egg-O-Rama festivities was a "peel 'em and eat 'em" contest. Contestants were divided into three groups—children, adults, and teenagers. The children participating had to peel and eat two hard-boiled eggs. The teenagers saw their egg quota doubled and even tripled, with points lost if too much white remained in the shells.

Broken Arrow FFA members are planning another Egg-O-Rama for this year. They believe they have given their neighbors a friendly nudge in the right direction—back to eating more eggs.

MILK PRODUCING MACHINES...

raise replacements faster, sell all your whole milk, too!

INSTANT SUPER-CALF KIT

High Energy Milk Replacer

10% FAT  28% PROTEIN

Sell all your whole milk at a profit! With Instant Super Calf-Kit you can have your calves completely weaned and on dry feed in six weeks for less than $5 per calf. And they will be well on the way to becoming superior milk producing machines.

In test after test, under normal management conditions, calves receiving Instant Super Calf-Kit gained an average of up to two pounds daily over a six-week period. Four other leading milk replacers tested fell far below this growth level. Super Calf-Kit calves also showed better bone development, silkier hair coats and a complete absence of scours.

It looks ahead!

You'll soon be seeing this giant 4-wheel-drive tractor! Three-hundred horsepower gives it the speed and pull to set new acre-per-day work records. And it's more nimble than much smaller rigs. It steers with all four wheels... even "crabs" to farm steep slopes where only a crawler dare follow. Bold new IH ideas promise a bright future for farmers.

Idea factory is an investment in tomorrow's agriculture

Ten acres under one roof... all devoted to developing better farm equipment. That's International Harvester's Farm Equipment Research and Engineering Center at Hinsdale, Illinois.

Here nearly 1,500 men... engineers, soils experts, chemists, metallurgists, even atomic scientists... look ahead to the needs of tomorrow's farmer. These men know farming and farm needs. The most modern laboratories and facilities in the farm equipment industry are at their disposal. Design, development, and testing of farm equipment go on twenty-four hours each day.

Test machines aren't babied... they're abused. In an indoor field, planting, tillage, and other tests continue, rain or shine, the year around. On a test track, tractors pull heavy loads at wide-open throttle, day and night.

Field-going laboratories follow new machines far into the countryside where engineers measure, with amazing precision, the actual stresses and strains of rugged field use.

And at the research center, machines twist and jolt implements being tested to duplicate stress and strain of field use. Thus engineers crowd 10 years of normal farm use into as many weeks... wear machines out fast to find and eliminate weak points before new designs go to the farmer.

Building farm tractors and equipment best fitted to the farmer's needs has made IH first in farm equipment. And the greatest research and development program in the industry will put tomorrow's IH farm equipment even farther ahead.

World's biggest farm equipment research center puts 10 acres of tomorrow under one roof. Here, design, development, and testing of farm equipment are carried on by skilled teams, using the most up-to-date equipment and instruments.

INTERNATIONAL HARVESTER

World's largest manufacturer of farm equipment
DOYLE CONNER, National FFA President in 1948-49, has been elected Commissioner of Agriculture for the State of Florida. For him, high office at an early age is nothing unusual.

While a Sophomore at the University of Florida in 1950, Doyle entered the race for state representative of his home county. The “schoolboy candidate” as his opponent scornfully called him, was elected to two terms while still in college.

He was made Chairman of the House of Representatives Agricultural Committee at the age of 23. At 26, he was unanimously elected Speaker of the House—the youngest speaker ever in Florida and probably in the nation. He was voted one of the most valuable members of the 1957 and 1958 legislatures.

Even though he is now in politics, Doyle still finds time for farming. He raises Angus and Brahman cattle on his farm; also hays, pecans, and Shetland ponies. In addition to farming and politics, he owns and operates insurance and real estate agencies in Starke and Miami.

HAFEN NOW LAWMAKER

FFA’s Vice President of the Pacific Region in 1959, Bryan Hafen, has been elected Assemblyman from Clark County to the Nevada Legislature. He is 22 years old, which makes him one of Nevada’s youngest lawmakers.

One of FFA’s most capable leaders, Bryan served as Nevada’s 1956 State President and in 1957 was named Star Farmer of the Pacific Region. He studied agriculture for one year at the College of Southern Utah and was president of the Clark County Farm Bureau in 1959.

Bryan is farming in partnership with his father and brother. They have over 100 dairy cattle, 164 acres cotton, and 170 acres in other crops and pasture.

A MOVIE TO SEE

A HEARTWARMING movie of youth in American agriculture will be coming your way soon. It was filmed in Texas and at the International Livestock Show in Chicago. Many of the scenes were shot at the Katy, Texas, FFA Fairgrounds and in the FFA rodeo arena.

Toutboy and the Champ is not a typical Hollywood release. The plot of the film is based on a true incident in the life of a Texas ranch girl who loves animals.

Candy Moore, star of the film, shows her Angus steer at the Houston Fat Stock Show. He doesn’t win but Candy still thinks that "Champy" is a Champion. She is determined to show him in Chicago but is stricken with polio.

Not a quitter, Candy learns to walk again by leading Champy. Then she goes to Chicago—with Champy. That’s all we can tell you—we don’t want to spoil it for you.

KENDALL
FARM
LUBRICANTS

KENDALL REFINING COMPANY • BRADFORD, PENNA.
"EXTRA HAND" SERVICE AT WORK:

"A quick phone call saved me half a day"
says Murray Verity of Emerald Farms, Delaware, Ohio

1 THINGS LOOKED BAD when "Bud" Verity's tractor tire punctured one morning in the midst of corn picking. That could have cost him half a day running into town for repairs. Instead, he phoned for Goodyear "Extra Hand" service.

2 8 MILES AWAY in Delaware, Ohio, Goodyear Dealer Vane B. Smith took Verity's call. His truck was already loaded up and ready to roll. A few quick questions to help in diagnosing the trouble and he was on his way.

3 JUST 20 MINUTES LATER and Smith was already on the job at Emerald Farms, pumping out the solution before repairing the tire. On the truck is the free "loaner" supplied whenever a tire needs "shop" repairs.

4 ONLY ONE HOUR AND A HALF after the accident happened, Verity's tire has been expertly repaired and he's headed back to work in his corn field. "I'd have lost at least 4½ to 5 hours if I'd had to demount my own tire—run it into town—wait around for a repair—bring it back and remount it," he says.

It's easy to see, then, why so many farmers count on Goodyear to save them time and trouble—and money. They know there's no match for "Extra Hand" service or for extra-quality Sure-Grip tires that outwork anything on tractors today. That's what makes such loyal Goodyear fans of so many present farmers and future farmers the country over.

Goodyear. Farm Tire Department, Akron 16, Ohio.

Lots of good things come from

MORE FARMERS PREFER GOODYEAR TRACTOR TIRES THAN ANY OTHER KIND

Choose either the popular 3-T Sure-Grip or extra quality Traction Sure-Grip tires, both out-in-front performers.

February-March, 1961
New mailbox design is first in fifty years. Made by Southern Fabricators.

Round farrowing pen has panel which keeps in baby pigs. Walsh Mfg. Co.

Electric-eye sprayer uses powerful aerosol nozzles. Use on dairy or beef cattle. Made by the Milfred Co., Pittsburgh, Pennsylvania.

Plastic foam panels are lightweight and provide good insulation. Can be used for walls or roof. Wood-Fab, Lester Prairie, Minnesota.

Bale thrower will load bales up to 30 inches long and 60 pounds weight. For IH's McCormick hay balers numbers 46 and 56.

Dual rear wheels are heavy duty option on "Jeep" truck. Comes with stake or pickup box. Also four-wheel drive. Willys Motors.

AIC's McClarren, left; Jacoby, right.

**FFA Director Takes New Post**

Walter Jacoby, state supervisor of vocational agriculture in Connecticut, has accepted the position of director of youth activities for the American Institute of Cooperation. Mr. Jacoby has been a member of the National FFA Board of Directors for the past three years. He succeeds Howard McClarren, a man well known to Future Farmers throughout the United States.

**FFA Leader Retires**

After 44 years service in education—25 of them as Alabama Supervisor of Vocational Agriculture—Dr. R. E. Cammack has retired. Since 1945, Dr. Cammack has been Director of Vocational Education in Alabama. Under his guidance as state supervisor, the number of vo-ag departments in his state grew from 29 in 1921 to 259 when he left the position in 1945. He organized the FFA in the state and was one of four state advisors who worked with the National Office in setting up the Future Farmers of America Foundation.

**Cartoon Contest Winners**

... from the December-January issue. The judges picked the one with the earliest postmark in case of ties.

First prize, $5

"A few critical hours can make a difference in the quality"—John Pleger, Kinley, Kansas

Second Prize, $10

"You pass the qualification"—Paul Huber, Eola, Ohio

Third Prize, $5

"And this is just the beginning"—Johnny Owen, Dalton, Georgia

Honorable Mention, binders for copies of The National FUTURE FARMER

"Just right"—Roger Johnson, Pine City, Minnesota

"Here's how the tests were conducted"—David Dierenfeld, Chondler, Minnesota

"Stretch out and relax"—Robert Chavis, Lumberton, North Carolina

"I agreed to hold a test clinic"—Paul McCre, Wetumpka, Oklahoma

"So 'tigh' for the outdoor life"—Larry Pumphrey, Greensburg, Indiana

"Yes, it will be a Christmas to long remember"—Larry Swank, Cassopolis, Michigan

"Here's a special"—Charles Couch, Shattuck, Oklahoma

"A carefully planned first shot must do the job"—Lance Scherbarth, Chadron, Nebraska

The National FUTURE FARMER
Charred meat scraps like these are not accepted by MoorMan’s. Sample of each shipment undergoes chemical and microscopic analysis. Insures feeders of consistently high-quality feeds.

Why MoorMan’s Mintrates mean “your money’s worth”

A farmer can buy 40% protein hog feed for as little as $80.00 per ton—or he can pay as much as $180.00 per ton. Which feed is the best buy? Does he make the most money by buying the feed that costs the least? Or does the highest priced feed mean that it is the best?

Two factors control the “difference” in feeds of comparable protein content:

1) Types of ingredients used as a source of protein

2) Quality of the ingredients used

Many types of ingredients can be used as a source of proteins. But many of the inexpensive sources do not supply a good balance of amino acids. As a result, protein feeds using only inexpensive protein sources may sound cheap. But they cost more because it takes more to produce 100 pounds of pork.

MoorMan research scientists are constantly studying ingredients that could be used as a source of proteins. Their objective is to establish the “balance” of proteins that will help hogs gain faster on less feed. As an example, MoorMan’s Mintrate® 45 for Hogs contains 7 sources of protein—fish meal, whale meal, tankage, meat scraps, blood flour, soybean oil meal and dehulled soybean oil meal. This combination of protein sources has proved to be an effective formula to help cut pork production costs.

The quality of ingredients used is just as important as the kinds of ingredients used. So, MoorMan’s research teams must test every shipment of protein ingredients that they receive. If the meat scraps are undercooked it lowers the quality. If they are overcooked the burned particles are not as digestible and your hogs don’t receive the protein they should. So, samples are taken of each shipment of protein received. And each sample is subjected to chemical and microscopic analysis, to be certain the ingredients used are always top quality.

MoorMan’s believe it is their obligation to supply American farmers with livestock feeds that will produce meat, milk and eggs at lowest possible cost. Quality control is a vital phase of this effort at Moorman Mfg. Co., Quincy, Ill.
Charles Nemet has a 280-acre farm near Hampshire, Illinois. He grows corn, oats and soybeans, raises market hogs and milks 35 purebred Holstein cows. It takes about 15 telephone calls a day to keep his operation going.

Until about five years ago, Charlie handled these calls on the house telephone. Ten to twenty times a day he tracked to and from the house to take or make calls. It was costing him at least an hour a day.

So Charlie had an extension phone installed in the milkroom where it's handy to the dairy barn as well as to the other buildings. That stopped the running.

Now Charlie figures his milkroom phone saves him a good hour a day. And this one hour saved is more than enough to pay its monthly cost.

Look at it another way. In the past five years this extension phone has saved him over 1500 man-hours. That's a lot of farming.

Why not have a look around your operation and see how many hours of your time an extension could save? They're your own hours—the kind you can't hire.

Call your telephone business office. They’ll be glad to help.
Here’s the outlook as seen by agricultural economists.

Weather conditions will continue to play an important part in sheep production, but most likely sheep numbers will change little. If slaughter does not change much, prices should be close to, or only a little below 1960.

Hence, the livestock outlook in 1961 is for only moderate changes in production and prices. But you should be alert to the serious effect on prices that could happen if production continues to outrun population growth.

Dairy Products
Commercial supplies of milk products will again score a record high. It will be a little above the record of 1960. At the same time, commercial demand probably will increase less than the population. Prices to farmers and consumers will average above a year-earlier through March, 1961. The level of price support announced in April may change this picture, though. This predicted record year for dairymen means sales should set a new record. This doesn’t mean a record in income—total costs for producing dairy products have been rising at an increasing rate, too.

Eggs and Poultry
The outlook is not too promising. Egg prices should remain favorable to producers—seasonal factors considered—at least through the first quarter of this year. Thus, the stage will be set for an increase in chicks produced during the important hatching months. This, in turn, will cause storers of shell eggs and breakers not to buy as much of the seasonal surplus as they normally would—therefore causing a price decline. Average egg prices for the year probably will be 1-4 cents lower than 1960.

Broiler producers face the same situation. Too many broilers are expected to be on the market, and may cause falling prices. As a whole, the broiler business may end up worse this year than it did in 1960. Turkey production is expected to increase also. Producers can’t except to get the prices they did last year.

Feed Grains
Prices for feed grains were a little lower in the fall of 1960 than in 1959 and will probably average lower for the entire 1960-61 feeding year. Another big drop: a slight reduction in livestock on farms; and the lower support for 1960 corn; these are the important factors influencing lower prices.

Wheat
With the minimum national allotment of 55 million acres in effect for 1961, it is estimated that about 53 million acres will be harvested. A crop of about 1,235 million bushels is predicted, about 10 percent below 1960, but 13 percent above the 1950-59 average.

United States prices to farmers in 1960-61 may average below five cents below the announced national average support rate, or about the same as 1959-60 when the price averaged $1.76 per bushel and the loan was $1.81. The minimum price support level this year will be $1.78 per bushel (national average).

Cotton
There will be an increase of a million acres in cotton allotments for 1961. There will be no Choice A or B support level. Legislation says there will be one support level between 70 and 90 percent of parity. Also, the quality to which the support level applies will be changed from middling 5s to the average quality of the crop.

Tobacco
Support levels will be about the same as last year.

Fruit
Demand will be good. Little, if any, price changes from 1960.

Vegetables and Potatoes
Vegetable prices are expected to be about the same. Late spring potato crop is expected to be smaller than usual.

Rice
Support prices had not been announced at the time we went to press. However, prices paid to farmers have been above the support price eight times in the past 10 years.

Conclusion
All in all, 1961 will not be much different from 1960. If you made money last year, you will probably do the same this year. If you lost money, watch out! There is no better time than the present to analyze your 1960 records. Find out where you lost money in 1960, and resolve not to make the same mistakes this year.
FARMING
... because he likes it

His chosen career of agriculture has brought him many rewards. The biggest is Regional Star Farmer of America.

By Horace McQueen

IT MIGHT APPEAR to a non-farmer that we Yankee farmers could live a lot better with less work by moving to the city, or even to agricultural areas where the soil is richer and free of stones. Maybe so! But I don't know of any Vermont farmer—even though he complains about the weather and rocky soil—who would leave his farm unless absolutely forced to do so.

Charles Sargent, 21-year old East Cabot, Vermont, dairy farmer made this statement over two years ago. Has he changed his philosophy? Evidently not. He is this year's Regional Star Farmer of America from the North Atlantic Region.

Charles has always loved farming, but little did he realize that a heavy load of responsibility was to be placed on him early in life. In high school he was a good vo-ag student and FFA member from the start. The vo-ag department at East Cabot High School was closed for lack of teacher right after Charles enrolled. Charles didn't give up—he started attending school at Danville, even though it was further from home. Danville had a vo-ag department and that was important to him.

About this time his dad died. This meant Charles would have to assume the added responsibility for operation and management of the 250-acre farm.

The first year, his supervised farming program consisted of a 50-percent ownership in 39 Jersey cattle and 85 acres hay and grain. Labor income that year was $794.50. Charles and his mother continued operating the farm on the partnership arrangement for the next two years. And each year, Charles' labor income grew.

In 1956, Charles became owner of the farm by assuming its $9,000 debt. The real estate deed was put into the name of Charles, his wife, and his mother. The personal property deed is in the name of Charles and his wife. For all practical purposes, Charles owns the farm outright. He and his mother have an arrangement whereby she receives a sufficient income and a place to live on the farm. Charles has all responsibility for the farm management and operation.

Farm improvement became his goal in 1956. Attention was given first to increasing the productive income of the farm. Some improvement goals were: increased herd size; improved breeding and culling; better quality roughages; pasture rotation; and a bulk milk tank. Each of these goals has either been accomplished or is being carried out.

Eleven acres of cropland have been added by bulldozing a stone wall out of a small field and pasture. Another stone-filled pasture was made tillable by clearing.

During the fall of 1958 Charles had a new basement stable constructed under the barn, providing space to tie up 21 more cows. In the spring of 1959, a new two-level milk house was built at the end of the new stable and in August of that year, the bulk tank was installed.

Profits have climbed steadily since Charles began his improvement program. He milked 29 head of cows in 1957 and they averaged 6,048 pounds milk, for a return above feed cost of $164 each. In 1959, the average of 32 cows was 7,583 pounds milk and return above feed costs had risen to $247 per cow. In June 1960, Charles had 34 Jersey cows, 12 heifers, and five calves in his herd. He values them at $10,800. He also had seven acres planted in mixed hay with a cover crop and 65 acres in hay.

Charles has a lot of money tied up in equipment—$9,525. Included are a 1959 tractor, loader, spreader, milk tank, hay dryer, and an ensilage chop-

Part of the 34-cow Jersey herd Charles is milking now. In the last three years, Charles has increased production from his herd by an average of over 1,500 pounds per cow. A meeting of the Danville Young Farmer class. Charles and the other area Young Farmers are studying new techniques of operating their friend—the milking machine.
Is it ready to cut for silage or not? This is the question Charles, left, had just asked his advisor, Melvin Somers.

per. Charles figures it is cheaper to have the machinery to do a job than to hire additional labor.

Charles and his father-in-law, Fred Bumps, provide all the farm labor, and it has been a big help to Charles to have an older man around. Charles says of Mr. Bumps: "His never-failing good humor and downright good sense have been invaluable since the day seven years ago when I took over management and operation of this farm." Charles married Mr. Bumps' daughter, Norma, in 1957.

Grain is not produced on the farm. Charles believes growing conditions in his part of the state are not suitable for any feed other than roughage. He does produce his hay and silage though.

The year 1957 was a big one for Charles. In the space of only a few months, he was named State Star Dairy Farmer, Star State Farmer, Star State Farmer of the North Atlantic Region, and to top it off, winner of the National Star Dairy Farmer Award. Total winnings were $550 in cash, a registered Jersey heifer, and a trip to the National Dairy Congress at Waterloo, Iowa.

Charles has found time for other activities besides farming. He was president of his FFA District and Vermont FFA Association vice president. He also served one year as state chairman of FFA work.

He is very record-conscious and competes regularly for top honors in the D.H.I.A. He is a member of the Danville Young Farmer Class, the American Dairy Association, Eastern States Cooperative, and the Farm Bureau.

What does he plan for the future? Charles says he will not expand further at present, but will use some of the profits to reduce his debt load. After that, look for him to start expanding again—and he has the determination to make a success of whatever he undertakes.

Bottom photos by Venard, Peoria.

DO YOU really want to go to college? You had better get busy if you do. Reports from agricultural colleges show it is getting harder and harder for farm boys—and city boys too, for that matter—to complete a college education. Half the students who enroll in college don't stay long enough to graduate.

Fortunately, most reasons for dropouts can be corrected, leading college officials say. First, you have to know what causes students to leave ag colleges, and then, learn what you can do to improve your chances of surviving.

The most frequently mentioned reason for college failure is scholastic weakness. More than one-third of the students who dropped out of Iowa State during the 20-year period studied gave reasons such as low grades and unsatisfactory preparation for college. From 20 to 50 percent of the dropouts were due to scholastic failures.

"These failures can be due to inadequate preparation either in high school or college and I believe it's the latter," says Assistant Dean Westervelt Griffin of Rutgers' College of Agriculture in New Jersey.

"A student will work hard in high school to gain admission to college, and then once admission is achieved, he sits back and rests on his laurels. He doesn't realize his goal is actually graduation from college, not admission," he adds.

Many students leaving college do so for reasons other than with problems with their studies. Nearly one-fourth of the dropouts surveyed by Iowa State preferred to work rather than continue college. Fifteen percent of the Michigan State University agricultural college dropouts in recent years said they thought they would be further ahead by leaving college to go to work. Half the MSU drop-outs said they went to work because they needed the money.

Another 23 percent of the MSU students dropped out to enroll in another college—usually a smaller one. "This indicates their social preparation may have been somewhat inadequate," explains Vern A. Freeh, coordinator of student programs at MSU's College of Agriculture.

A study by the Washington State Agricultural Experiment Station showed high school students who were active in student affairs and leaders among their group were more likely to go to college in the first place.

What can you do to better assure yourself of a chance to graduate from college? The most frequently mentioned advice is study while you are in high school. Learning to study is essential to a successful college education.

Just because you go to a small high school does not mean you won't get through college. But still, some studies indicate students from small high schools have a harder time graduating from college than students from large schools. Another study found that students from small high schools who stay in college do as well, if not better, than students from large high schools after the second or third college year.

How well you do in your studies, both in high school and especially in college, may depend on the assurance you are taking (or will take) the right college course. If possible, choose the college field you want while still in high school. Roy M. Kottman, dean and director of agriculture and home economics at Ohio State University, says choosing your field early will motivate you to do better in college.

You should also start giving some thought to how your college career will be financed. The money made from your supervised farming program can go a long way towards paying the bills. Working part time at college is another way to make money—especially when the work ties in with your field of study. If you major in dairy husbandry, for example, what better job than working at the dairy center?

Still another way to finance your college education is through scholarships. Plenty of scholarships are offered—more every year—and many go begging. Finding out about them is a matter of shopping around and "keeping your ear to the ground."

Coordinator Vern Freeh of MSU also advises prospective students to prepare themselves socially if they are to be truly happy and successful in college. This means learning social skills and social customs, and can be done by joining

(Continued on Page 54)
WASHINGTON the farmer

Often called America's first scientific farmer, Washington loved farming first, last, and always. He has a place of honor in FFA rituals and National FFA Week comes during the week of his birthday.

By Joe Dan Boyd

CHANCES ARE, George Washington is so tangled in historical tradition that you have trouble thinking of him as a real flesh-and-blood man. You've seen paintings that haven't helped much: the silken breeches and powdered wig of his day add to his ghostly image.

You think of George Washington as America’s first great general and first president—the “Father of his Country” in the term’s fullest sense. What’s more, the time-honored legends of a cherry tree and a silver dollar have elevated him so high that you’ve likely never seriously considered following his example.

And that’s a big mistake! Because, aside from being one of the world’s most unusual men, George Washington rates high on the list of all-time great farmers.

Stroll across the rolling acres of Mt. Vernon, Virginia, today and you might doubt that anyone could make it pay. You'd be justified, too: for only one man has: George Washington, this country’s original “get-it-done man.” But he did more than pluck a profit from this stubborn soil. He also made history as a pioneer in the field of scientific farming.

Here's the too-little-known story of a man who symbolizes your FFA treasurer and has been labeled patron saint of the Future Farmers of America:

Actually it was a small inheritance that launched Washington's career as a farmer; he was 11 when his father died. According to custom, Lawrence—as the oldest son—got most of the estate including Mt. Vernon. Washington's piddling inheritance of the 280-acre Cherry Tree Farm on the Rappahannock plus a share of land at Deep Run and a few other considerations wasn’t much comfort. Nor did he get any of it until his mother's death 46 years later when he was already famous and wealthy in his own right.

Washington started accumulating land with money he earned as a surveyor. He mastered this craft by his 14th birthday and received a certificate from William and Mary College three years later. At 16, George had bought 550 acres; he added another 456 acres two years later and another 552 before he reached 21. Much of this was uncleared land, but George's interest in

The National FUTURE FARMER
power and farming whetted his interest in any sort of land. In those days, success with land or farming was equal to power. And George was an ambitious young man.

Two deaths and another inheritance: Lawrence died at the early age of 34, leaving Mt. Vernon to his young daughter with George as executor and manager. But she soon died and Lawrence's will then made George the owner of Mt. Vernon's 2,500 acres.

But the adventurous young Washington also had an eye for the glory of military service. Perhaps this delayed his serious attention to farming for a few years. A major at 20, he was Adjudant General of Virginia in charge of the state's northern district. Two years later he became a colonel in the Virginia Militia and led a skirmish which touched off the French and Indian War.

Washington resigned his military commission when he was 26 and soon married Martha Custis, a wealthy Virginia widow. At that time he owned about 5,000 acres of land which had not fared well under his brother's care during the campaigns.

Martha's holdings were even more substantial: about 7,500 acres each of cleared and uncleared land plus a large amount of cash and other valuables. Part of Martha's property was held in trust for her two children, but most of it went to her new husband under the laws of colonial Virginia.

Washington began to take farming seriously! He had a keen business mind, an eye for detail and a searching curiosity about anything new. He kept a daily diary from 1760 till his death in 1799, much of it dealing with his farming activities. The only major interruption in his diary came during the American Revolution.

Washington divided his huge estate into five farms: Doseo Run Farm, River Farm, Muddy Hole Farm, Union Farm and the Mansion House Farm, where the big house still stands today.

The management system was quite modern. Each farm's overseer made weekly reports which Washington used for his notes, diaries and account books. He made exacting notes on planting, harvest and sale. You'll recall from the FFA opening ceremony:

"I keep records of receipts and disbursements, just as Washington kept his farm accounts-carefully and accurately."

Washington learned from mistakes; he is on record as saying: "The general custom has been, first to raise a crop of Indian corn which, according to the mode of cultivation, is a good preparation for wheat; then a crop of wheat; after which the ground is rested for about 18 months; and so on, alternately, without any dressing, till the land is exhausted, when it is turned out, without being sown to grass-seeds or any method being taken to restore it; and another piece is ruined in the same manner."

As early as 1766, Washington realized the error in continued tobacco cultivation. He practically abandoned tobacco, the major colonial crop.

Eventually Washington worked out this six-year rotation for the Mt. Vernon farm: 1) Indian corn with intermediate rows of potatoes 2) Wheat, rye or winter barley (soon after the last corn working) 3) Buckwheat, peas or pulse; or vegetables—or both (anything except grain) 4) Oats or summer barley with clover 5) Keep in clover for cutting, feeding, or both. (Vetch, pulse, or vegetables could be substituted when necessary) 6) No cultivation; pasture: manure applications.

An interesting sidelight: Washington's livestock carried a "GW" brand on their right shoulder.

Nothing was wasted at Mt. Vernon; Washington tried everything that was usable and bought nothing he could produce—he tanned cattle hides and sold fish from his waters. Most historians credit Washington's farming success to an unusual ability for using by-products and conservation practices.

He welcomed other people's help. Neighbor George Mason was a handy source of ideas during Washington's early years at Mt. Vernon. He also corresponded with a variety of agricultural experts, among them Sir John Sinclair, president of England's Board of Agriculture. Washington's library was well-stocked with agricultural references.

Some have called Mt. Vernon one of the earliest "experiment stations" in America. It's true that Washington tried various manure and water applications under controlled conditions. He experimented with countless new seeds, fertilizers, and management practices.

Washington called the life of a farmer "most delectable." "It is honorable. It is amusing, and, with judicious management, it is profitable," he said.

Everyone knows that George Washington gave seven years of his life without pay to command the Revolutionary Army and eight more to serve as the new country's first president. What isn't so well-known is that he would have been much happier "under his own vine and fig tree" than in either of these glory spots. His first interest was, by his own admission, farming.

Perhaps his far-reaching vision and love of farm life are best expressed in his eighth address to Congress: "It will not be doubted that with reference either to individual, or National Welfare, Agriculture is of primary importance. In proportion as nations advance in population, and other circumstances of maturity, this truth becomes more apparent; and renders the cultivation of the soil more and more, an object of public patronage."

Next time you think of George Washington, pull the "image" down to a human level. After all, he was a farmer too.
The best in registered cattle, a fine working partnership, and FFA training.
These are the ingredients of success at Walnut Valley Hereford Ranch.

By Horace McQueen

How do you measure success? Different people measure it in different ways. Some in money, some in social position, and others in many other ways. Boyd and Kenneth Waite of Winfield, Kansas, knew they were a success when their three sons said they wanted to farm and ranch like their fathers.

The Waite family's Walnut Valley Ranch is not a "hobby ranch," but a ranch built on education, practical experience, sweat, and a love for agriculture. Over 30 years ago, Boyd and Kenneth started out in vo-ag and from there kept climbing. Today, they are justly proud that they have found a way to bring their three sons into the operation.

A good FFA background has played a big part in their success. All five partners took advantage of their vocational agriculture training to build their ranching operation on a firm foundation. Boyd was first president of the Kansas Association and was fourth National Vice President in 1929-30. He received his American Farmer Degree at the 1930 Convention and Kenneth received his the next year. Boyd's son, Dwaine, received the American Farmer Degree in 1957. Kenneth's son, Ralph, and Boyd's other son, Larry, were active in all phases of FFA work in the Winfield Chapter. Both hold the State Farmer Degree.

"We attribute much of our success to our advisor, Mr. Ira Plank," says Kenneth Waite. "He helped Boyd and me work out a partnership agreement with Dad in 1931 and here, 27 years later, helped us set up the partnership which brought our three sons into the operation."

Mr. Plank still serves as a sort of unofficial advisor for the Wai tes. And even though he is retired from teaching, he is in the vo-ag shop at school nearly every afternoon working with Future Farmers.

The Waite Ranch is about 2,100 acres—960 owned and the rest leased. Of this, 1,250 acres are in grassland and the remainder in wheat, milo, alfalfa, silage, and soil building crops.

Their main enterprise? There is no doubt of their first love—cattle! Since 1906, registered Herefords have

The Waite's former ag teacher, Mr. Ira Plank, with Boyd and Kenneth in front of the huge machinery and show barn.
ranged over the gently rolling ranch. About 375 Herefords roam the ranch today—some of the best in the U.S. In addition, about 100 head of steers are bought at auctions each year and fattened on grass.

In July, 1959, the present ranch partnership was formed. It was estimated that about $100,000 was invested in cattle and machinery at that time. Boyd and Kenneth sold a half interest in these two assets to their sons—thereby giving each son a one-sixth interest. Boyd and Kenneth did not sell an interest in the land or buildings, but let their sons use them as a part of the partnership. Rented land costs are paid for from the partnership operating fund.

Each son signed a note for what his share would cost. It was agreed that each son would receive $250 per month for living expenses. At the end of the year, the fathers get $4,500 each—equivalent to the annual amount the sons receive—before profits are divided. Boyd and Kenneth get all royalties on minerals, which at present include eight low-producing oil wells.

Each of the partners is well pleased with the partnership. Several good features stand out: it keeps the sons on the farm, has good tax advantages, and reduces the problem of finding competent labor.

Ralph graduated from Kansas State College in 1957 with a degree in animal husbandry and Larry is a Senior there now. While in college, Larry still receives his $250-a-month check but has to pay a farm hand to work in his place.

Ralph is also a livestock auctioneer and works several sales each year. When he is gone, the partnership operating fund pays his expenses but

Dwaine poses the chief herd sire at Walnut Valley—Real Silver Domino 193rd. A good bull in anybody’s book.

Ralph has to put the money he earns back into the partnership. Boyd Waite says this arrangement prevents one of the sons from working away from the farm just because he can make more money.

The crops provide a good percentage of the ranch income. This year, the 285 acres planted to wheat produced about 40 bushels per acre. For winter feed, they use silage—made of grain sorghum and alfalfa hay. Kenneth says alfalfa is the best protein feed they have found for the money. They also had 100 acres of sweet clover this year on land they are improving.

The Waites devote much of their time each year getting ready for their annual production sale. About 70 cattle are sold—and buyers come from all over the country. They also like to attend other ranchers’ sales. They bought one of their top bulls—1R Royal Heir 124th—for $2,500 at the Turner Ranch sale at Sulphur, Oklahoma. He is a son of one of the best in the Hereford breed—which is valued at $240,000.

They believe in their cattle as evidenced by a paragraph always present in their sales catalogues, “Should any animal herein catalogued sire or drop a dwarf calf, we will refund double your purchase price upon return of such animal to our ranch.” They haven’t had to pay yet!

The Waites are well known for helping young people become established in farming and ranching. Kenneth and Boyd are directors of the Cowley County Fair. The Fair gives Future Farmers and 4-H Members an opportunity to exhibit and sell their animals each year. Boyd is now the Fair sales manager. His son, Dwaine, was first president of the Kansas Junior Hereford Association—the first in the nation. All five partners are members of the local Farm Bureau and local state and national Hereford associations.

The Waites’ feel they have been successful. Their dream of seeing their sons established in farming has been realized.

***

What FFA Should Mean To Every Member

Work—Work does many wonderful things. It makes wood and brick into houses and homes; it makes clothes to protect our bodies; it makes tractors and farm machinery to help.

But above all work makes a man out of a boy. Work develops the muscles and the brain cells of youth. A working boy very seldom gets into trouble with the law. You as Future Farmers with a good supervised farming program must work to make your enterprises succeed. This work may be hard at times, but as you are successfully completing your farming program you are fast becoming a good citizen. Remember—“The man who never does more work than he gets paid for never gets paid for more work than he does.”

Learning—The prime reason we go to school is to learn. We are living in an age when an education is necessary for successful living. Future Farmers, now is the time, while you are in high school, to learn all you can. Study your lessons, ask questions, do your assignments, and be eager to go to all of your classes with the idea to learn. Too many boys try to see how little they can get by with. When you are mature and out in the game of life, you will be glad you used your high school energies to learn rather than to “goof off.” Remember—“As long as you are green and learning you are growing, but as soon as you ripen you begin to rot.”

Recognition—Work and learning bring recognition. Our FFA program is full of recognizing the boys who put forth effort to succeed. We have our work and learning requirements to become a Greenhand, a Chapter Farmer, a State Farmer, and an American Farmer. With each degree you are recognized with a certificate and pin for your efforts.

It is natural for a person to enjoy some praise or award for a job well done. This gives you a feeling of success, and one success after another builds self confidence and a positive attitude which are so necessary for a happy successful life. Remember—“Nothing succeeds like success and the recognition of success spurs you on to still higher goals.” TRY IT!

By L. C. Shank, Nevada State FFA Advisor

February-March, 1961

39
A Checklist For

Efficiency is the key word in farming today. You have to be efficient with land, labor, and capital to be a good manager.

Farm Management

By Raymond Schnessler

Take a hard look at your present program. What are its weak spots? What expenses are being made that aren't paying off? In the light of costs and expected prices, what changes are needed?

The size of the farm, its soil quality, the weather, and your market outlets limit the earning power of your farm. But your ability as a manager is an important factor in how well you do. One good way to find your weaknesses as a manager is to keep records on your business and to compare them with selected standards of accomplishment.

There are some crop and livestock enterprises that are better suited than others to your region, your farm, your management, and your ability to carry risk. Few farmers are equally skilled with several enterprises. Your ability and skill with different enterprises may be the major factor in determining your farm plan.

The following check sheet indicates some of the points you should consider in looking for weak spots in your business. Some of the questions may not apply to your farm. There may be others that you should consider. Although you can't give definite answers to some of them, you can find them useful in sizing up your farm as a unit. In other words, the answers may be what you think the situation is on your farm. Talk them over with other farmers and compare with them any changes that might be wise for you to make in your farming operation.

A Suggested Farm Management Check Sheet:

1. Do you have an adequate volume of business?
   a) Do you employ more than 12 months of labor productively? Yes No
      (If less than 12, your business is probably too small.)
   b) Is there "room" in your sales for a satisfactory profit? Yes No
      Amount of your sales for last three year Next year
      (List from income tax return or records.)
   c) Do you have enough resources to permit an efficient business? Yes No

2. Do your crops fit the farm?
   a) Is erosion under control? Yes No
   b) Are you able to keep up with the work? Yes No
   c) Are you growing high-profit crops that are suited to your farm? Yes No
   d) Are you maintaining or increasing the soil fertility? Yes No

3. Are you producing crops efficiently?
   a) Are your yields above those of similar farms in the neighborhood? Yes No
   b) Have you checked your fertilization rates? Yes No

4. Do your livestock fit the farm?
   a) Can you keep up with the livestock work? Yes No
   b) Do your livestock add the business volume you need? Yes No
   c) Would more livestock increase your net income? Yes No
   d) Are your enterprises of an efficient size? Yes No

5. Are you efficient with the livestock you have?
   a) Are your production levels above those of similar farms in the neighborhood? Yes No
   b) Are your feed costs in line with good standards? Yes No
   c) Are you efficient with all classes? Yes No
   d) Do you produce high-quality products? Yes No

6. Do you select and use machinery efficiently?
a) Are your machinery and equipment costs per acre in line? Yes No
(Add gas and oil, repairs, machinery depreciation, farm share of electricity, and machine hire; from income tax form. Divide by tillable acres. Check with good standards.)

b) Do you have enough machinery to keep up with your work? Yes No
c) Are you well satisfied with the machines you have? Yes No ...
d) Does expensive equipment that you own have enough annual use? Yes No ...

7. Are your buildings adequate?
   a) Are your buildings adequate for the present program? Yes No
   b) Are you making full use of them at present? Yes No
c) Do your buildings allow labor and machinery to be used efficiently? Yes No
d) Do you keep stored crops in good condition? Yes No

8. Do you use your labor efficiently?
   a) Are your labor costs per acre in line? Yes No ...

Accurate records of yields and gains will help you check your farm efficiency.

(Months of labor available, times monthly wage rate, divided by tillable acres. Check with good standards.)

b) Are you kept busy at productive work? Yes No
(You can check your workload by obtaining appropriate standards for your area: 225 to 250 days per man is a reasonable workload.)
c) Are you timely with all operations? Yes No

9. Do you need more capital?
   a) Do you have adequate operating capital? Yes No
   b) Do you use credit when additional capital is needed in the business? Yes No

10. Do you market your products effectively?
   a) Do you plan to sell on the seasonally high markets? Yes No
   b) Do you produce high quality products? Yes No
c) Have you carefully selected the best outlet or method of sale? Yes No

Study carefully the problem areas indicated by a No answer. They may indicate leaks in your business.
Agriculture Today

Where does agriculture rank in America today? The answer may surprise you. It is the biggest industry in the United States. Farming employs 7.4 million workers; more than are employed in the steel industry, or the automobile industry, or transportation and public utilities combined.

The investment in agriculture exceeds $203 billion, equal to three-fourths of the value of current assets of all corporations in the U.S., or three-fourths of the market value of all corporation stocks on the New York Stock Exchange.

Investment per worker in agriculture is way above that of the manufacturing industry. An investment of $21,300 is tied up in each farm employee and only $15,900 for each worker in the manufacturing industry.

Four out of every 10 jobs in private employment are related to agriculture.

Ten million people have jobs storing, transporting, processing, and merchandising agricultural products. Six million people have jobs providing the supplies farmers use.

Agriculture is not a slow-moving industry. It is efficient and progressive. One hour of farm labor today produces four times as much food and other crops as it did in 1919-21. Crop production is 38 percent higher per acre. Output per breeding animal is 81 percent higher.

Productivity of the American farm worker in the 1950's increased by nine percent a year. Compare this to the nonagricultural industry where output per man hour increased two and one-half percent per year. Remember also that one farm worker produces food for himself and 23 others.

Farmers bear their burden of the tax load, too. In 1959, farm real estate taxes totaled $1.2 billion and income taxes paid by farmers came to $1.25 billion. Add this to the $372 million net taxes paid by farmers on motor fuels and the $172 million in motor vehicle license fees and taxes, and you can get a big chunk of money.

"Our wasteful surplus of farm crops," cry many people. Have you ever wondered where we would be if we produced less food than we need? We share our surplus food and farm products with friendly nations and under-developed countries. This strengthens the Free World. We also get many of our strategic materials from other nations in exchange for our surplus farm crops!

Did you know it takes one acre of healthy forest 20 years to grow the lumber for a five-room frame house? Farmers and other small woodland owners control 54 percent of the Nation's commercial forest. Three out of four of our forest owners are farmers. Then remember that the farmer gets only 25 cents stumpage for each $1 worth of timber produced from his woods. So don't blame the high cost of lumber on the farmer.

A host of other products also come from the farm. Take paper, for example. About 400 pounds of paper per person is consumed each year. One large New York City newspaper uses the equivalent of the net annual growth from 6,000 acres of commercial forest (Continued on Page 61).

The National FUTURE FARMER
When the "heat's on" you need power you can depend on...
These hustlers

thrive

on extra work!

The rugged Massey-Ferguson 65 and 85
Diesels finish strong...pay off big!

Ever get caught in a rush-season job—one of those now-or-never days—when there’s no time to lose? It separates the men from the boys . . . and separates these hustling diesels from all the look-alikes! Take your pick: the 4-plow MF 65 with Differential Lock—the “all-job” diesel that often plows an acre on just 1 gallon of fuel—or the mighty 5-plow MF 85—the lowest priced fully equipped tractor in the “60-horse” class! Either one pays off with outstanding year-round performance, whether the “heat’s on” or not. With fully mounted plows or tools, they’re in a class by themselves! That’s because there’s nothing to compare with the genuine Ferguson System for easy handling and precise implement control. Take weight transfer, for instance. When the going gets tough, you feel the tires dig in and pull through—automatically—before you even realize an extra effort was needed! You can’t possibly appreciate the Ferguson System ‘til you try it—so why not give it a try? Just ask your Massey-Ferguson dealer to demonstrate one of these rugged diesels right on your own place. Or, if you need a 3-plow tractor, ask for the famous MF 35. No matter which Ferguson System tractor you choose, in diesel or gas, you’ll soon know why it pays to be a Massey-Ferguson man!

MASSEY—FERGUSON

Look, compare . . . MASSEY-FERGUSON, world’s largest manufacturer of tractors and self-propelled combines

February-March, 1961
FIGURE YOUR COST BEFORE buying machinery

Total yearly cost of owning machinery may be more than you realize. Here is how to figure it.

ASSET OR LIABILITY? This should be your foremost consideration when thinking of buying more or bigger equipment. The answer is easy enough to get. All you need is a pencil, paper, your farming records, and some simple mathematics.

The bigger pieces of equipment, such as hay balers, combines, and forage harvesters must have a lot of annual use to be a good buy. If you don't have a big volume of work, you may be better off to let a custom operator do the job.

Then again, custom machinery work may present some problems, making it cheaper in the long run for you to own the machinery. The custom operator may not be available when needed or doesn't do the work the way you want it done.

Another prime consideration should be your labor. If a custom operator does the work, can you put your labor to efficient use? If not, you end up paying the custom operator for his labor while yours is idle—and idle labor means lower income.

Some farmers have the mistaken idea that the biggest and latest farm machinery makes more money. Kenneth Loope, an extension ag economist at Virginia Polytechnic Institute, tells about a visit with a farmer who had 100 acres in corn—and a machinery investment of $100 per acre. The annual repair cost alone on his machinery was more than an efficient farmer nearby had invested in all machinery. This is not an isolated case. Many farmers believe in a lot of machinery, but if they ever calculate what it costs them, they may find it isn't paying off.

Some farmers can do custom work for other farmers cheaper than the farmers can do it themselves due to spreading the overhead over a larger acreage.

Use this simple formula to see if it would be cheaper to own a certain machine. Total annual overhead cost, divided by the custom rate minus operating cost (per bale, acre, tons, etc.). The answer is the "break-even point" in bales, acres, tons, or whatever you might be working with.

Overhead and operating costs are the two big factors in machinery buying. Overhead costs are going to be the same each year, whether the machine is used or not. The cost of operation is the variable—it increases as you do more work.

The so-called "DIRT 5"—depreciation, interest, repairs, taxes and insurance—make up overhead costs. Here is how to figure overhead. Depreciation: divide machine's expected years of life into the purchase price. If expected life is 10 years and purchase price is $500, depreciation is $50 yearly.

Interest rates differ from area to area, but we will use six percent of one-half the purchase price. Six percent of one-half $500 equals $15. Taxes and insurance come to about one and one-half percent of the purchase price. One and one-half percent of $500 equals $7.50. This gives total of $72.50 in overhead costs (not counting repairs) each year for the $500 machine.

Size and Type

You don't want a two-row tractor when a four-row one would be more economical. Before deciding what size machinery, you need to know total operating costs per acre for each.

A one-row corn picker used on 20 acres of corn each year in Virginia had a total operating cost of $630 per acre (including power). The two row picker cost $8,56 per acre on 20 acres. With 30 acres, the cost for the one row picker was $3,52 and $4,16 for the two row. When over 80 acres was harvested annually, the two row picker was cheaper to operate. The cost to harvest 90 acres was $3,02, for the one row picker and $2.86 for the two row picker. It's easy to see that on the basis of these costs the farmer with over 80 acres of corn will be better off with a two-row picker.

You should also be sure to get the type of equipment that will pay the biggest dividends. Whether to buy a hay baler that uses the tractor power take-off or one with an auxiliary motor is a good example.

Extension economists in Virginia have figured that total overhead cost on an $1,800 hay baler with power take-off is about $292 a year. Overhead costs per year for a $2,600 auxiliary motor hay baler was found to be $424. Cost of operation for each ton of hay baled was calculated to be $1.48 for the power take off baler and $1.42 for the auxiliary motor baler. The operator's labor or the operating cost of the tractor is not included in these figures. The more hay baled per year means a lower cost per ton, as these figures from Virginia show:

<table>
<thead>
<tr>
<th>Tons</th>
<th>Power Take-off</th>
<th>Aux. Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>$16.08</td>
<td>$22.62</td>
</tr>
<tr>
<td>40</td>
<td>8.78</td>
<td>12.02</td>
</tr>
<tr>
<td>100</td>
<td>4.40</td>
<td>5.66</td>
</tr>
<tr>
<td>200</td>
<td>2.94</td>
<td>3.54</td>
</tr>
<tr>
<td>300</td>
<td>2.45</td>
<td>2.83</td>
</tr>
<tr>
<td>500</td>
<td>2.06</td>
<td>2.27</td>
</tr>
</tbody>
</table>

Now use the formula for figuring the break-even point to see if custom operation would be more economical for you. Let's compare custom baling with the costs of owning a power take-off baler. Referring to the above costs, overhead cost for one year is $424. Say, for example, hay is custom baled in your area for $6.00 per ton. Custom rate of $6.00 per ton minus operating costs per ton of $1.48 equals $4.52. Now divide $4.52 into $424. This gives you a break-even figure of about 94 tons. This means it will pay you to own the baler if you put up over 94 tons of hay a year.

These are only a few examples of what it costs to operate farm machinery. You will be interested in others, such as the difference in operating costs between a two- and a three-plow tractor or a six- and 10-foot combine. Your state agricultural college probably has information sheets on the cost of operating different sizes of equipment in your area. Spend a few of these cold winter days comparing costs of operation and your net income will show the results.
Illinois School Wins
304 Bushel Challenge
..211 Bushel Corn Yield

A group of Tiskilwa, Illinois high school vocational agriculture students under the guidance of their instructor, are the winners of the 1960 Funk's G-Hybrid 304 Bushel Challenge competition with a record breaking 211.125 bushels per acre yield. This was the highest yield reported in the three-year history of the project. All corn was harvested and weighed from the measured acre which topped the entries of over 300 vocational agriculture departments from all of the Eastern two-thirds of the United States.

The winning Tiskilwa group will receive the National High Challenger Trophy (left) and a $250 cash award from the producers of Funk's G-Hybrid Seed Corn. Mr. John Orcutt is their instructor.

The five boys responsible for the Tiskilwa entry started with a silt loam field which had been in meadow the previous two years. Before plowing they applied one and one-half tons of lime, four hundred pounds of plant nutrients in liquid form plus fifty tons of manure. They planted their top yielding acre on May 31st using a new Funk's G-Hybrid, G-72 . . . bred for top performance under high fertility and thick planting. The planting rate was 35,850 kernels per acre and the final stand was nearly 28,000. A 2, 4-D spray was used after the last cultivation. The acre was measured off by a three-man harvesting committee and the acre was picked with a picker-sheller and gleaned for ears missed by the machine.

In 1955, Lamar Ratliff, a 16-year-old Mississippi farm boy, grew 304.38 bushels of corn on a measured acre. This is officially recognized as the highest corn yield of all time. In growing this crop, Lamar used every corn raising practice at his command—including some new ones he figured out himself.

The producers of Funk's G-Hybrids believe that such all-out corn raising attempts result in communitywide benefits, and therefore sponsor the 304 Bushel Challenge everywhere corn is grown.

If you would like more information on the National 304 Bushel Challenge Project for 1961, please contact the Producers of Funk's G-Hybrids, Bloomington, Illinois.

THE PRODUCERS OF FUNK'S G-HYBRIDS

February-March, 1961
Blackie of Antelope Gap

By Ruth Southworth

Blackie is a dog as unusual as his name is common. He's a bit of the Old West that's rapidly disappearing—a dog who earns his daily bread and justifies his existence. He is truly his master's best friend for he works with and for him, within limits of course. Blackie lives on a cattle ranch and works stock for Ned Wedemeyer in the Antelope Gap Country near Wheatland, Wyoming.

Blackie has never gone out for Hollywood heroes. He has never even once roused his family to save them from a demon blaze, or dragged a single drowning child from the water. On the contrary, he was once himself the victim of a shameful adventure. He was fighting a marauding coon that had been raiding the chicken house. A coon's favorite trick is seizing a pursuing dog and holding him under the water until he drowns. This coon led Blackie to the river's edge and proceeded to drag him under the water. Ned grabbed a shovel and ran to the rescue, but missed the coon and knocked poor Blackie cold. However, he got him away from the coon and onto the bank where Blackie came to and forgave Ned his error in marksmanship. No, Blackie isn't dramatic, but he typifies the West—the simple, honest, working old-boot West.

Ned may want to move a bunch of cattle to another location. Usually he does this with a horse and Blackie's help. But he can resort to the pickup if it's handier. He tells Blackie to round 'em up. Then he leads the way in the pickup and Blackie trails the cattle behind it.

Blackie is a big help in bringing in stragglers that may have deliberately sought the solitude of a secluded draw. At feeding time Ned scans the hills and valley for such strays. Spotting one at a distance, he calls on his pardner. Since the dog works by signals of the arms, Ned communicates with him far beyond the reach of voice. The right arm raises means circle to the right; and the left arm, to the left. Both arms held high means stop or hold it.

One windy day Ned stood in the pasture guiding Blackie in this way to a cow up a draw and out of the dog's sight. He didn't hear the approaching footsteps, so he was startled when a man's voice said, "What the devil are you doing?"
The tone implied that he thought Ned was lost. Nor was he reassured by Ned's reply. "I've got a dog down there somewhere bringing in a cow." By this time both the cow and Blackie were hidden by a hill, and the man looked dubious. As the two men talked, Ned discovered that the stranger was hunting arrowheads, so they had mutual misgivings about each other's sanity. While they were still trying to come to some conclusion, in came Blackie trailing the cow. The stranger stared and said, "Well, I'll be doggoned. That's a new one on me."

Blackie is gentle with the wobbly baby calves. He'll put his head between their hind legs and push them along with his shoulders in the direction they are supposed to go. But he's smart, too. Or cautious. If a calf bawls his resentment and brings the mother charging, Blackie discreetly retreats to a sage bush and lies watching until the threat of battle is over.

But Blackie isn't all virtues. He has some redeeming canine frailties. He's getting old and sometimes just doesn't feel in the mood for too much work. Then when Ned sends him on a distant errand, he may get up on a hill top and lie down just pecking over to keep an eye on Ned, hoping no doubt that the straggling cow will wander in by herself and save him some tiresome chasing. On occasions, time means as little to him as to a whistling boy sent to bring in the milk cows. He will stop to sniff at every soap weed, take time out to chase a jack rabbit, dig in a gopher hole, or otherwise loiter along the way, though he eventually finishes his assigned task.

Since Blackie is getting along in years, Ned decided he'd better take advantage of the old boy's intelligence to break in a new recruit. Several times he has tried taking a pup out for Blackie to train. On one such occasion Blackie rounded up the calves only to have the pup run through the middle of the herd and scatter them. Ned signaled Blackie to round them up again. He did, and the pup did a repeat performance of scattering them. On the third attempt Blackie lost his patience and drove the pup back to the house. He didn't have time to be bothered with such juvenile incompetence.

This country was pioneered by men who agreed with the Spaniard who said, "Let's think of being fathers of the future rather than sons of the past." Nobody cares who your ancestors were: the important thing is what you are. But, like many of these folks, if he wanted to, Blackie could brag about his ancestry. His grandfather, a Border Collie named Tippy, was a sheep dog well known along the Laramie River. Bo, son of Tippy, was Blackie's father; and Boo, an Australian shepherd, was his mother. Blackie was born in March 1947.

When Blackie was two months old, Ned borrowed Bo for a short time to start the pup's training and then took over his educational program himself. When the little fellow would get tired, Ned would pack him up behind the saddle. Even now Blackie sometimes rides there if Ned is on a cooperative horse.

Blackie is a good dog, but he has his pride. Ned had better control his temper—that is, if he wants Blackie's help and companionship. If he lets loose with a sharp word or bawls him out, no matter how far they are from home, Blackie takes Dutch leave promptly and you can almost hear him mutter as he trots away, "O.K., if that's the way you feel today, you can jolly well work your own old cattle."

The National FUTURE FARMER
Built to help in a big way... and save that way, too!

Nobody else has Chevy's knack of combining good looks and luxury with down-to-earth practicality. Here are cars that are full of good new ideas about comfort and space. (Just open the trunk of one of the full-size Chevies, or the liftgate of that Corvair wagon!) Full of good old ideas, too, about Chevy's well-known thrift and no-nonsense dependability. You've got 31 to choose from. Talk to your dealer. . . . Chevrolet Division of General Motors, Detroit 2, Mich.

1. Biscayne 2-Door Sedan. Here's where you get big-car comfort at small-car prices!
2. Bel Air Sport Coupe. Like all Chevies, these Bel Airs skim over the bumps with a Jet-smooth ride.
3. Chevy Corvair Lakewood 700 Station Wagon. The only wagon with cargo space plus a lockable trunk!

'61 CHEVROLET
SAFETY ON HORSEBACK

There is something about the outside of a horse that is good for the inside of a man, is an old western expression. Learning to ride a horse can develop good character in the rider as well as giving him exercise.

You may know how to ride a horse. Good. But do you practice safety on horseback? Riding safely is just like safe automobile driving—you must first learn the rules of the road before you go galloping down the road. Keeping in mind several important rules—and obeying them—can make your rides safer and more fun.

Proper Clothing
Your clothes can contribute a great deal to safer riding. Poor fitting clothes may cause the rider to sit in the saddle incorrectly and become unbalanced. They may also interfere with necessary body movements, such as mounting and dismounting.

Be sure to wear enough clothing in cold weather to hold in body heat and perspiration. Your boots should be a good fit and have enough of a heel to keep them from going through the stirrups. If gloves are worn, be sure they are loose enough to provide freedom of movement and good circulation.

Equipment Check a Must
The rider's safety often depends on the equipment of his horse. Bridle reins, stirrup leathers, and cinches must be in good condition. Even expert riders have been severely injured or killed when the horse was moving fast or was highly spirited and a leather strap broke.

If you have your own gear, clean it often with saddle soap and occasionally oil it with neatsfoot oil. Check the leather for any signs of weakness. If your stirrups have leather coverings, be sure a Toe guard is attached so there will be no chance of catching a foot between the tread and covering.

Using a sweat-crusted saddle blanket has been the cause of several accidents. Blankets should be turned inside out and dried after each ride. When they are placed on the horse, smooth out all wrinkles before the saddle is put on. Otherwise, the horse may get a sore spot on his back and you'll be eating dirt.

Another good practice is to check the horse's shoes before beginning a ride. A loose shoe can cause a horse to stumble or trip and possibly throw the rider.

Handling Your Horse
You can lessen many accident hazards if you understand the normal behavior and reactions of your horse. First of all, horses are very responsive to kind treatment, but they also respect firmness. Once you learn this, you can control your horse safely and easily.

However, most horses differ in their behavior patterns to some extent. After a few rides on the same horse you will learn his likes and dislikes. Remember that each time you ride a different horse, the things that worked on the last horse may not go over well with this one. The best rule is to be alert. This will prevent the majority of accidents.

When approaching a horse in a barn or in the open, never come up from the rear. Approach from the left side only and speak to him gently to warn him of your presence. Never mount or bridle a horse in close quarters. Riders have been crushed against the stall or kicked a country mile because they tried it.

After your horse is saddled and you are sure all equipment is in good shape, you are ready to ride. The rules of the road listed below will help you come back from your ride in the same condition you started.

A. Avoid riding on pavement—but if you must, keep the horse to a walk and ride as far to the right as possible.

B. Don't ride too fast on rough or rocky trails or in sand or mud. In such terrain, let the horse pick his own way.

C. On frozen ground, never let your horse gallop.

D. Never ride in the kicking range of another horse.

When going up or down a steep hill, hold the horse to a walk for both the safety of you and the horse.

Keep your heels down so the feet can't slide through the stirrups. Keep a firm grip on the horse with your legs. Don't stunt ride. It's dangerous enough for stunt riders—and besides they get paid for it.

The horse walks at a rate of four miles per hour, gallops at twelve. If you are in a bigger hurry, take a bus.

Easy does it when you bring the cinch up. Keep head up as this rider is doing here and you won't get kicked.

Sit in the saddle properly. Stirrups should be long enough so that legs will be slightly bent when mounted.

Spurs are not needed on the average horse. Use the heel of the boot to guide the horse and to speed him up.

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

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

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

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

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

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

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

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

U. S. Forest Service Photo

ONE FARMER was about to 

back up the butt log of an old, 

but sound walnut tree, when his 

son had an idea. He got a veneer com-

pany to examine the tree and the 

company bought it for $200!

Another farmer found out that white 

oak used as tight cooperage in the manu-

facture of watertight barrels was 

scarce. Then he remembered that a 

year before a government forestry in-

spector had remarked about his stand of 

white oak. Today he is reaping a 

profit from it.

Girls and boys of a nature club 

earned $1,000 last year collecting long-

leaf pine cones and selling them to a 

forestry nursery.

You'll be wise to investigate the 

woodland on your property. First, take 

a complete inventory, not only of the 

trees, but also of the small herbs and 

other vegetation that grow in your 

woods. If you need information, you 

can get it from the U. S. Forest Ser-
vice and from agricultural agencies 

and trade associations, who are in the 

business of discovering new and improved 

uses of forest products.

Here's some of the "gold" that a 

forest may contain:

Tree bark may be a source of tannin, 
drugs, fiber or fuel.

Roots and stems of plants may yield 

toast, fiber, drugs, dyes, gums, and 

resins and wood specialties. Leaves 

may contain oils and dyes.

One woodlot is drawing a profit for 

its owner by supplying a florist firm with 

Osmunda fern, a fairly common 

plant in the wet woods near the 

Canadian-American border. The florist 

uses the roots to make compost for 

growing orchids.

The root and stem of sassafras are 

used for the extraction of oils for 

flavoring root beer and some medicines. 

The oil is used also to produce an 

artificial "heliotrope" for the manufac-

ture of perfumes.

Eastern red cedar is in demand for 

pencils, cedar chests, and insect repel-

lents. Large trees are sought by manu-

facturers of cedar chests; while small 

stock—of the fence-post variety—may 

be sold to pencil-block companies. Even 

the sawdust of the tree, if produced in 

quantity, is usable to produce cedar oil.

Baseball bats are made from young, 

sound white ash; wood from old trees 

is fine grained and too brittle for the 

purpose. For this reason the owner 

of a stand of young ash may often 

realize a greater income from the sale 

of ash bolts than from logs for lumber. 

But before cutting your ash into 40-

inch bolts required by but manufact-

urers, check with the buyers to de-

termine whether your wood meets 

specifications.

A similar market is the one for han-

do stock. Good handles for striking 

and lifting tools require qualities not 

found in sawed boards. They are pro-

duced from short logs of hickory and 

ash. In this case also, send samples 

to manufacturers before you under-

take extensive harvesting.

Another little-known product of the 

woodland is basket willows. The North 

American green willow growing on the 

borders of lakes and streams has mar-

ketable shoots that spring from the 

stumps. These willows may be culti-

vated by setting out cuttings about ten 

inches long in the early spring. The 

cuttings root easily in the moist soil 

and within a few years will develop 

well-established stock from which rods 

can be harvested each year. Peeled 

willow brings the highest prices in the 

market basket.

Needles of pine, spruce, and fir have 

a fragrance that help create a specialty 

market for balsam pillows. While this 

market is limited, it provides more than 

pin money for persons living near 

resorts, where such pillows are sold 

for souvenirs and gifts.

The leaf of the wintergreen plant 

growing in the woods of the East is 

one of the sources of wintergreen 

flavor, similar to that of the inner 

bark of black birch. Though most 

wintergreen flavor is now produced 

synthetically, there is still demand for 

the natural flavor.

Minor markets are also found for the 

resin of balsam fir and the bark and 
twigs of black birch, from which 

medicinal products are derived. Sphag-

num moss, because of its water-holding 

ability, often finds a ready market at 

forest nurseries and gardeners' supply 

houses. It is ideal both for packing 

seedlings for shipment and as a medium 

for seed germination. Harvesting is 

done by taking the moss from the water 

and permitting it to dry in the sun.

Seed, particularly that of the conifers, 
is in demand by forest-tree nurseries. 

And as planting programs expand, the 
demand will grow. Markets are found 

not only in government nurseries, but 
among private nurseries as well. The 

woodland owner with a good seed crop 

should look to these markets, learn 

the specifications for collecting, storing, 

and shipping cones and other fruit that 

may be in demand. If markets cannot 

be found locally, the forestry agency 

should know where they are.

Cones can also be sold for decora-

tive purposes and for use in the manufac-

ture of novelties. Small cones, such 
as those of hemlock, are tied to wreaths 
of evergreen material or artificial green-

gery for Christmas use. Others may 

be painted, dyed or otherwise orna-

mented for use as Christmas-tree trim-

nings. Craft shops are the market for 

such materials.

And, of course, there's cord wood 

to be sold as fuel. With good roads 

and transportation, woodland owners 

will find it profitable to haul fuel wood 

for 15 miles or more to the city 

markets. In most large cities, fireplace 

coals is a luxury item that sells at a 

luxury price, and it is sure to establish 

a steady year-round market and sup-

ply good-burning wood.

Local custom and use determine the 

sizes into which fuel wood should be 
cut, but there is one standard require-

ment—the wood must be thoroughly 

dry. Naturally, then, you must cut 

the wood several months before it is 
sold.

You can see how wide the possi-

bilities are of extracting cash from 
your farm woodlot. No plant in the 

forest is too small to be considered; 

no part of the plant too insignificant to 

find a market or home use. The secret 

of success is to find out what the land 

is growing or is capable of growing; 

discover or develop a use and market 

for it; learn what the plant needs 

for its best development; and practice 

intelligent husbandry and harvesting, so 

continuing crops may be assured.

By Raymond Schaessler

The National FUTURE FARMER
"If you ask the cow...
the longer the hay,
the better..."

So replied a famous animal husbandman when asked what length was ideal for cattle.

The method of putting up cured hay, of course, depends on feeding practices. But baled hay probably comes closest to the preference of the cow.

And baling it with an Oliver 62 makes it better still. First, by packaging it faster (13.44 tons per hour in a timed test) to reduce the risk of nutrient loss in a bleaching sun or leaching rain. Second, by the gentlest handling of all—because only slender tines carry the crop from field to bale case. Oliver’s patented Roto-Flo Feeder forks in the biggest bunches smoothly, surely...builds a bale with eight sliced beats. No augers grind; no beaters pulverize the rich, fragile leaves.

Designing power and machinery to make farming more profitable has been the business of Oliver for 112 years. And the counsel of your neighborhood Oliver dealer is at your call. Also, consult him when equipment and shop facilities are needed for educational projects. He’ll be glad to cooperate.

OLIVER CORPORATION, CHICAGO 6, ILLINOIS.
History of the Breed

The Holstein-Friesian

Another in a series on the origin of our livestock breeds.

The breed we know as Holstein-Friesian had its beginning in the Kingdom of the Netherlands. Origin of the breed is lost in history, but it is generally accepted that the Friesians and Batavians brought their cattle with them when they settled in the fertile lowlands of the Rhine Delta, at or before the beginning of the Christian era.

The intermingling of these cattle (one black, the other white) evolved finally a black and white breed which developed size and producing ability on the lush pastures of the region. It is generally believed that these cattle also contributed to later foundations of the Shorthorn breed in England, the Ayrshire in Scotland, and the Alderneys on the Isle of Guernsey.

The first Holsteins were probably brought to America by the Dutch settlers in New Amsterdam (New York) about 1621. But their breeding was not kept pure and therefore had no influence on the later development of America's dairy herds.

About the year 1852, Winthrop Chenery of Massachusetts purchased a cow from a Dutch sailing master. He made two later importations in 1857 and 1859, but lost all of them except a bull to an outbreak of pleuro-pneumonia in 1860. Chenery, however, had become convinced of their superior merit, and made an additional importation of a bull and five cows in 1861. The fame of their production spread and in 1869, Gerrit Miller and others made further importations.

By 1871, there were enough breeders interested to form an association to record their pedigrees. That year the Association of Breeders of Thoroughbred Holstein Cattle was formed. In 1877, the Dutch Friesian Association of America was formed by another group of breeders who felt the name Holstein was not the correct designation. The two groups merged in 1885 to form the Holstein-Friesian Association of America.

This present organization is the largest dairy cattle breeders' registry in the world. At present, it has over 47,000 members and has registered the pedigrees of over 5,000,000 animals, all of which trace directly to that handful of original animals imported from Holland.

Home offices of the breed association are located at Brattleboro, Vermont.
Don Sanderson (left, center) reports, "We have fed nine thousand cattle on Stilbosol rations. All college feeding tests, plus our own experiences, proved to us that you can't stay in this business without Stilbosol."

"Our cost of gain went down 4¢ a pound when we put Stilbosol back in our ration"

"We're feeding Stilbosol again . . . this time for keeps," reports Don Sanderson, S&J Feedlots, Norton, Kansas.

"Right after we went back to Stilbosol, we had a load of steers come in. We fed them for 140 days and they gained 448 lbs. per head.

"We figure our cost of gain with Stilbosol to run about 19 to 20¢ per pound. Without Stilbosol, our cost of gain shoots up to 23 to 24¢ per pound.

"If we don't feed Stilbosol, we lose about ¼ lb. daily gain per head. By the time it takes to fatten cattle for market, this loss of gain amounts to $9 or $10 a head. As close as they keep the margin on fat cattle, that $10 a head that Stilbosol gives you is most of your profit these days.

"A man couldn't last in this business if he didn't feed Stilbosol. Oh, sometimes he can make a profit if the margin is high enough, but in the long run he's going to go broke," Don concluded.

After seven years, Stilbosol continues to give feeders an extra 15% gain on 10% less feed.

Makers of Hygromix® (S. hygroscopicus fermentation products)

ELANCO PRODUCTS COMPANY • A DIVISION OF ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA
JIM ROBERTSON drove the red pickup truck around the implement dealer’s lot for the third time. He’d been seen going to that lot to look at the tractor for three weeks now. It was a good used tractor, with a $1595 price tag on it. Today he just might drive in and arrange to have it delivered.

It wasn’t so much money to pay for a tractor, but it was a mountain of money to the guy who had saved it from corn, hogs, potatoes and small garden produce. Jim reflected. He thought about how two years ago he and Dad had made the agreement that he was to get one-fourth of the farm income as his pay for working with Dad on their 160-acre valley farm.

Jim pulled the truck to a stop before the lot. Then he threaded his way through the lot. He knew where the tractor stood— in the row clasped as “older models.” But this was better than other older tractors. This one would pull a three-bottom plow without a sputter.

His blue eyes brightened at the thought of riding on the cushioned seat and watching three furrows turn over instead of two, and those two with protest from “Old Rackety,” the ten-year-old tractor which was the only one he had ever known.

He walked the last few feet and stopped, staring in bewilderment at the vacant space. They’d moved it! He couldn’t find it anywhere. With a scared feeling, he hustled off to the office.

“Hello,” he greeted Mr. Leviston, the implement dealer. “The green tractor . . . .” he stammered.

Mr. Leviston sauntered over and laid a sympathetic hand on Jim’s shoulder. “Oh, yes. Sold her just this morning to a fella over at the Junction. But, Jim, . . . .”

“You sold it . . . . Jim couldn’t go on. “No need to fret over that one.” Mr. Leviston went on, leading Jim toward the lot. “I’ve got one here you’ll like better. More suited to your needs. A really big buy.”

Jim moved mechanically. The tractor he could afford was sold! All that saving and denying himself all those things for nothing! Another year of fighting it out with “Old Rackety!” Old Rackety who was long ago ready to be sold by the pound. The thought of the struggle made his throat hurt.

“Look,” the dealer was saying, “a big tractor . . . . a five-plow tractor with automatic wheel traction that overpowers anything known before. Eight forward gears give you the right power and speed for each job. Three-point hook-ups are faster than ever.”

“How much?” Jim asked, knowing that this was impossible to own.

“Well, let’s see.” Mr. Leviston took a pencil and pad from his shirt pocket and began figuring. “I could let this one go for $3595.”

Jim gulped. “That’s exactly $2000 more than I have! It might as well be two million.” Jim’s lips tightened.

It was a dreamboat of a tractor. Who wouldn’t want it? It was most suited to the heavy gumbo of the valley farm. But where could he get two thousand more dollars? After the crops were harvested? No, it was too risky until he earned the money.

He worked in the fields with determination for the next few days. He plowed the fields with “Old Rackety” until his arms ached and his back felt like it was being split in two. He worked until the perspiration poured out of his body, and the breath came hard from his lungs. If the crop was unusually large, he might have another $1,000. He could make arrangements about the balance then and be safe.

He thought about the giant tractor all morning. A real titan it was. Big enough to do everything they needed it to do. Maybe Dad wouldn’t mind going in debt. Dad was a good guy, alright.

It wasn’t that he didn’t want to advance to new and better equipment; it was more a matter of things being hard for them the last few years with low markets and high operating expense.

He found Dad in the kitchen with Mom. They looked as if they had had (Continued on Page 48)
Dirt particles in a cylinder act just like tiny grinding wheels to wear away the face of a piston ring. To protect against this abrasive wear, Perfect Circle 2-in-1 rings are plated with solid chrome—the hardest, longest-wearing surface you can buy.

As a result, wear is reduced an average of 75% over non-plated rings. And, Perfect Circle's chrome plating is 25% thicker than the average of competitive plated rings to provide extra protection and extra life.

In every way, Perfect Circle rings are built to take it. Insist on Perfect Circles—first choice of leading engine manufacturers and mechanics everywhere.

**PERFECT CIRCLE**

PISTON RINGS • PRECISION CASTINGS
POWER SERVICE PRODUCTS • SPEEDOSTAT
HAGERSTOWN, INDIANA • DON MILLS, ONTARIO, CANADA
THE TITAN

(Continued from Page 46)

word of a death in the family. Dad just stood at the sink looking out the window as if he'd never seen the fertile valley before.

"Jim, will you come outside with me and move the chicken feeders to new ground?" Mom asked smilingly, but with a significant nod that told him to obey without protest.

Jim followed her out without a word and as they neared the chicken yard he asked, "What's the matter, Mom?"

"The well man was here and the old well has run out. We've got to have a new well and new pipes to the cattle barn and to the feed lots," Mom looked up anxiously.

"Can't we bring the water back some way?" Jim felt panicky. They had to have water for the livestock, tractor or not.

"No. Those things just happen. Only it's been so tough for him these last few years. . . ."

"We'll make it some way. Now don't worry, Mom." Jim tried to throw off the last calamity as if it were nothing.

"I don't know. It might cost $1600 or more. It's $4.50 a foot, and we have to go so deep for water, and all that pipe to the barn lots. . . ."

Jim winced. Sixteen hundred dollars they'd never even thought of spending. Sixteen hundred dollars—the amount he'd saved. Dad couldn't help him with the tractor now. No use even thinking of a tractor when something as vital as water was needed.

It was barely dawn when Jim walked across the fields the next morning. A dim, gray world still in its sleeping clothes lay all about him. Trees and valleys were colorless shadows. And through the waiting silence of the earth, the musical, monotonous ripple of the pasture creek reached him. On its brink Jim paused and lifted his face, for a breeze, fresh with the purity of the dawn, which had begun to stir. He knew what he must do.

Striding to the cow-barn, he found Dad as he thought he would. He brought talk around to the water supply.

"About my share of the crop this year, Dad. You can skip it. I'm in no hurry. . . ." He hoped Dad wouldn't detect the lie. "That $1600 I saved. You can have it. I don't need it."

Dad glanced up at him. His voice thrrobbed with feeling when he spoke, although Jim knew he was trying hard to mask his emotion. "That's real big of you, Jim," Dad murmured. "Maybe if we have a bumper crop this year I could pay everything back and give you at least part of your share."

"That's okay," Jim said, and made his way to the implement shed and Old Rackety. Okay! With Old Rackety refusing to turn over, and parts for her getting harder to find every day, and the Titan tractor sitting in the lot, willing and anxious to do everything and anything that was expected of her. . . . He picked up a fallen ear of corn and hurled it at Old Rackety. Then he grabbed her crank and spun it with all his might. Old Rackety groaned and moaned, but she didn't turn over. Again and again and again Jim cranked the old tractor. Finally, she

(Continued on Page 50)

Best by a country mile...

Harley-Davidson Super-10

There's fun and pleasure on every foot of that country mile when you cover it with the Harley-Davidson Super-10 motorcycle. Simply nothing like the thrill of sailing high and handsome on the sharp Super-10.

Perfect for school, fun with friends, or running an errand for Dad. The 10-cu.-in. engine packs plenty of power. Easy to handle, too! The 10-in. wheel diameter provides a low center of gravity. Simple foot shift and hand clutch. Tele-Glide® front fork and foam-rubber-filled saddle-iron out the bumps. And don't forget that great Super-10 economy — as much as 80 miles to the gallon.

Why not go to town and see your Harley-Davidson dealer now. Or mail coupon for colorful Super-10 folder.

Dealerships Available Selling World's Leading Motorcycle Line

(Continued on Page 50)
JOHN DEERE New Generation Tractors

offer you a whole new concept of earning power


New 4- and 6-cylinder variable-speed Diesel, gasoline, and LP-Gas engines... new Syn-cro-Range Transmissions... new, more-verse-tile hydraulic systems... and new Independent 540-1000 rpm PTO are among the features new in the line that provide a whole new concept of earning power for you. Choose from three new Row-Crops, two Row-Crop Utilities, two Standards, two Hi-Crops, a Utility, Single Row-Crop and Crawler.

Ask your John Deere dealer for full details on the New Generation Tractor that best meets your requirements.

JOHN DEERE  3300 River Drive  Moline, Ill.

JOHN DEERE design, dependability, and dealers MAKE THE DIFFERENCE
sputtered and then let out a big angry roar. She shook as if six riveters were working on her at the same time. Jim climbed on her worn shiny steel seat, grasped the gear with all his might, and let her inch forward at her own chosen speed. “Come on, old girl!” he yelled above the din. “Let’s go.”

The hours in the field crept by as Old Rackety began herusual fouling up with deposits of unburned fuel and overheated oil. Jim gunned her though, trying to occupy his mind with keeping a straight furrow and pampering Old Rackety’s odd quirks.

But the more he rode Old Rackety the more he thought about the Titan tractor . . . all shiny and perfect. The more he thought about the Titan, the more he realized he never would have enough money to buy it. He felt sorry for himself, but he felt sorrier for Mom and Dad.

At the end of the row, Old Rackety sputtered, coughed, back-fired twice, shook all over and died. Jim’s heart jumped. Old Rackety had stopped running before, but it seemed different this time . . . so final. He cranked a few times, checked the old tractor over, and did all the things that had worked before, but it was no use. Jim walked over and sat down under the big elm that served as a corner post for their fence.

It took a lot of effort to hold back the tears. The frustration and disappointment welled up inside. It wasn’t just the tractor. He looked over his shoulder and through the fence. Here was his real dream. A choice 80 acres of bottomland with a few mixed acres of timber and pasture. Just what Jim and his Dad needed for their partnership operation. The land had lain fallow ever since Mr. Olsen had bought it.

Jim smiled bitterly as he thought of Mr. Olsen retiring from his job in town, buying 160 acres of good farm land just to piddle around with a small garden and enjoy the country air.

As Jim’s dreams faded, he suddenly sat up straight! Mr. Olsen! He wasn’t being fair in his thoughts about Mr. Olsen. He was a good neighbor, always stopping by to see if they needed anything when he went to town, letting Jim and his friends fish or swim in the creek whenever they wanted to. Jim’s idea began to grow. Before he had a chance to back down, Jim struck out across the empty field toward the Olsen’s neatly painted house.

The Olsens were just coming out of the house to get in the car and go to town when Jim stepped over the carefully trimmed hedge bordering the drive. They greeted him warmlly.

“I heard that old tractor quit on you."

---

**THE TITAN**

(Continued from Page 48)

**A Young Man Chooses**

Priscilla Sanders

Only a cricket stirred the silence of Sunday when John crossed the stone marked field, a lad grown suddenly a man since his father had passed leaving these acres.

At the fence, sagging with centuries of weather, he stood pondering:

Stone, stones cropping the earth as if they were something to harvest—no man had planted them
no man wanted them—

His great grandfather had felled the cedars
and split rails for the line fence separating the Colby’s.

Some big trees still remained,
gnarled and high as a steeple;
Here they belonged even as the stones even as the land and men wrestling a living.

Now his turn to take hold had come.
Should he quit or head to carry on?
The stones and cedars were held down but he was free footed and able.
A job could be had with cousin Ben in the city.

City all spiked with smoke stacks and walled in with buildings—
no sod there to set foot on—

Men worked inside day in day out as buried as earth worms from sun and sky.

Some folks liked living that way . . .
He looked to the towering trees touching blue skies
and then to Colby’s sheep on the far slope.

It was good land for sheep.
“Good enough,” he said stretching his arms.

Jim,” said Mr. Olsen. “I can pick up some parts for you in town?”

Jim took a deep breath and began.
“You can do more than that, Mr. Olsen. I’ve got a proposition to make!”

Mr. Olsen’s friendly eyes glanced over to Mrs. Olsen and back. “Why sure, Jim, we’re in no hurry. Retired, you know,” he said with a grin. “Ma.

(Continued on Page 52)
Here's the dramatic way in which Coleman D. McSpadden, a top grower of Hereford, Texas, found out the true value—the "dollars and cents" value—of Armour Vertagreen. Mr. McSpadden says:

"We had two fields of potatoes, one 32 acre plot and one 36 acre plot. We blend a lot of our own fertilizer mixes, so we mixed our fertilizer and put this mix on the 36 acre plot. Then we put the same number of units of Armour Vertagreen 10-20-10 on the 32 acre plot, in the ratio of 800 lb. per acre. We planted the same variety of potato, with the same planter, the same farm, the same irrigation well, in fact we made every effort to have the conditions as nearly alike as we could, trying to prove to ourselves that our own mix was at least as good as Armour Vertagreen.

"The results were amazing! We harvested 37½% more potatoes per acre from the plot fertilized with Vertagreen than we did from the plot fertilized with our 'home mix'. We were lucky in having an exceedingly high market when we dug these two plots, and the potatoes harvested from the Vertagreen plot paid us $375 MORE PER ACRE than the other plot, at an increased cost for Vertagreen of only $7.00 per acre. Nice extra profit!"

Yes indeed! Spectacular testimony from another forward-looking farmer that "it isn't how little a fertilizer costs, but how much it does that counts." As Mr. McSpadden knows, the proof is in the profits. See your Armour agent for Vertagreen and prove to yourself, the profitable way, that Armour Vertagreen is worth more because it does more!
why don't you get Jim and me a cool drink while we talk?"

They sat down on the porch while Jim told Mr. Olsen his whole story. Told him about hoping to own that back 80. Told him about the used tractor and the new one. Jim finished his story with, "And, Mr. Olsen, I know I can make that 80 acres pay off for both of us. All I need is a tractor, even another used one. I can use our other machinery. I'll work your land in return for use of the tractor on our land. I'll put lights on it and put in extra

hours after dark . . . and when we harvest I don't take a dime until you get your money back for the tractor . . . and then next season, we'll already have the tractor paid for and . . ."

Mr. Olsen laughingly interrupted, "Whoa now, Jim, hold it a minute. Here, you've already harvested a bumper crop and planting another before we've even bought the seed." Jim realized he had been talking faster and faster, and now it hit him, how childish and perhaps foolhardy he probably sounded to Mr. Olsen who hadn't been a farmer. Mrs. Olsen had come back while he was talking and quietly sat down by her husband.

Mr. Olsen raised his arm and dropped it around her shoulders in the same affectionate way Jim had seen his Dad do with his Mother. Mr. Olsen glanced back at Jim and softly said, "Ma and I never had children, Jim, and only last night we talked about what a shame it was that this rich land isn't being used as God intended. Also, what would happen to it after we're gone. I've always wanted to be a farmer and we've thought about finding a young fellow who loved the land and could help make the place pay with a little hard work. Jim, we need someone to work this farm. Oh, we could get by on my retirement income, but there's still lots of things we would like to do. So you're not asking me, I'm asking you. Can you be a partner in more than one firm?"

Jim's eyes had slowly widened, hearing but not fully realizing what Mr. Olsen was saying. His mouth was open, but he couldn't speak, finally he gulped, "I sure can!"

They all laughed and then as if a little embarrassed by Jim's further attempts to say thanks, Mr. Olsen said in a mock angry manner, "Don't think you're going to be able to slip off down to the creek during planting season now, 'cause I'm going to make sure you pay the installments on your debts." He snorted, "Well come on Ma, we've gotta go to town. There's a big Titan 85 I want to see, I've never shopped for a tractor before!"

Jim said, "I have to go tell the folks!" and took off on the run. Mr. Olsen called after him, "How you going to get that old tractor back to the barn?"

As he sailed over the hedge, Jim yelled back, "I'll dismantle her from drawbar to radiator cap and carry her home on my back!!"

---

**WIN A REGISTERED HEIFER**

In The Easiest Contest Ever!

4 FINE, REGISTERED HEIFERS TO BE GIVEN AWAY TO 4 LUCKY YOUNG FARMERS IN d-CON's Big "RAT CONTROL" Contest!

Just complete this sentence in 40 words or less,

"We Get Best Rat Control On Our Farm By Using d-CON Because . . ."

Along with your entry, send in a d-CON Ready Mixed box top,

If you're a winner in d-CON's "Rat Control" contest, you'll receive a fine, quality bred, registered heifer . . . bread of your choice . . . to be selected from an outstanding breeder. Your heifer will be of recognized blood lines . . . suitable for VO-AG Project Farming . . . excellent show potential . . . foundation stock for your herd!

Read the easy rules and enter the contest today. Just a few words may make you the proud owner of your own registered heifer. So get going right now!

**FACTS ABOUT d-CON TO HELP YOU WIN:**

- **d-CON is ONE rat killer that works and keeps on working—because it contains no violent poisons—NEVER MAKES RATS BAIT SHY!**
- **Rats just can't resist d-CON's EXCLUSIVE LX 3-2-1 formula! d-CON, used as directed, is safe to use around small children, pets, poultry and livestock!**
- **Every package of d-CON comes with FREE bait tray, which is specially made for maximum bait acceptance.**
- **Every package of d-CON is THERMO-SEALED to reach you FACTORY FRESH!**

**RULES**

1. To enter d-CON's big "Rat Control" contest, just complete the following sentence in 40 words or less, "We Get Best Rat Control On Our Farm By Using d-CON Because . . ."
2. Use coupon or write your entry on separate paper and mail with your name and address plus box top from any package of d-CON Ready Mixed, to d-CON, Dept. H., 1450 Broadway, New York 18, N. Y.
3. Entries must be postmarked by June 1, 1961.

---

**City Cousin**

"Which ones need corns removed?"

The National FUTURE FARMER
The "best" wasn't good enough!

No one would quarrel with the statement that the farm equipment industry has produced some mighty fine machines. But, given the spark of fresh creative engineering, there will always be a world of opportunity to achieve ever-new standards of efficiency and performance.

The Case engineering "firsts" shown above are good examples of what can be accomplished when men conclude that even the best in conventional design isn't good enough . . . and strike off in entirely new directions.

In the Dynaclonic diesel engine, our engineers found a new way to squeeze more power from diesel fuel . . . in Case-o-matic Drive, they harnessed the extra pull-power of the torque converter for farm use. They took the ladder climbing out of combining with on-the-go adjustment of the concave and cylinder from the driver's seat. They replaced the usual chains, power shafts, gearbox and clutch on manure spreaders with a single V-belt drive that permits faster, smoother spreading. They simplified baler design with a revolutionary sweep feed that eliminates a score of complicated parts and delivers up to 10-ton capacity at a price every farm can afford.

Yes, even the "best" can be made better, more productive. And therein lies our mutual opportunity—in fact, the future of farming—the development of increasingly more efficient machines . . . the constant search for new, cost-cutting, yield-raising ways of doing things.

WRITE—or see your Case dealer for complete information on any of these high-efficiency new Case machines.
Winter Tractor Tips

CHECKED your tractor thermostat lately? If you plan much winter operation, better do it in a hurry.

Why? Because it's vitally important that your tractor engine's operating temperature be over 160 degrees. Lower temperatures will increase your tractor's fuel appetite and cut down on horsepower. Researchers say a 20-degree temperature drop can increase fuel needs by 10 percent and rob you of as much horsepower. While waiting for a new thermostat, cover your radiator with a gunny sack to increase operating temperature.

Your engine may look neater with ignition cables taped together but it could cause trouble. Cross firing from induced voltage can easily happen.

Research proves that induced voltage results from a strong magnetic field being built up around any wire when a high voltage surges through it. Voltage may be produced in another wire placed parallel in the same field. Under certain conditions, induced voltage can cause a cylinder to fire when it isn't supposed to, resulting in serious engine damage.

If you aren't planning to use the tractor this winter, chances are you face some battery storage problems. Don't forget that a battery can become damaged by self-discharge when standing for a long period. Formation of large lead sulfate crystals in the plate pores can spell danger too. Sometimes improper winter storage can damage a battery permanently.

You can avoid battery headaches this winter with a booster charge every 30 days. If the battery is kept in a warm building you may need to recharge it more often.

Be Ready for College

(Continued from Page 25)

activity organizations and informal groups in your high school or community. Chances are you will have plenty of help in your studies and other problems while in high school. But when you go to college, you will be on your own. You will have to depend much on the scholastic, social, and financial preparation you made in high school. It will be up to you to correct difficult situations. Dean Griffin of Rutgers says this should be done by first searching out counselors and others who can help you diagnose your problem, since many times you won't recognize it. Second, you should decide to put aside certain things that are time-consuming and don't help a college education.

It is tough—but not impossible. And the rewards, financial and otherwise, are great. The maximum annual income of farm-reared boys who graduated from Iowa State was 50 percent above the highest level of farm boys who were college dropouts. The income differences between college graduates and those who did not attend college at all was even greater.

The rewards are great for those who make it. Start preparing now to be one of those who earns a college degree.

"Don't cry, pet—after all, it's only a little old eight-dollar and sixty-three-cent roast."
All fertilizers of the same analysis are not alike!

Check yourself on the following question. Don’t be surprised if you miss. Fertilizers are a rapidly changing part of this business of farming.

If they will pass a state test, are all fertilizers of the same analysis alike?

Not too many years ago, if you answered “yes,” you would have agreed with the experts. Today as research men understand more about fertilizer, the correct answer has to be NO. There are too many things that affect the final yield that CAN be different in various products, even though they all pass the same minimum tests. For example, the process by which they are made, the exact compounds that are in the final product, the kind of NITROGEN used, the kind of PHOSPHATE used, the kind of POTASH used, the other compounds that are in the product, the trace elements, the secondary elements, the uniformity of analysis, the way in which the fertilizer is used.

All of these things ... and many more ... we will discuss with you in future issues. We hope you will find it interesting and helpful. Your comments will be appreciated.

SMITH-DOUGLASS ASKS:
ARE YOU UP TO DATE ON FERTILIZERS?

☐ YES
☐ NO

SMITH-DOUGLASS ASKS!
ARE YOU UP TO DATE ON FERTILIZERS?

☐ YES
☐ NO

S-D FUTURE FARMER OF THE MONTH
JOEL ANDREW HUNEYCU TT
Stanfield Chapter, Locust, N. C.

Joel is attending North Carolina State College, with the assistance of a Smith-Douglass scholarship. He served as president of his FFA chapter, and plans to enter some phase of forestry upon graduation from college.

SMITH-DOUGLASS
COMPANY, INC. • HOME OFFICE: NORFOLK 1, VIRGINIA

Smith-Douglass Co., Inc., manufactures and distributes fertilizers and chemicals for agricultural and industrial use, including sulphuric acid, anhydrous ammonia, phosphoric acid, nitrogenous tankage, phosphate rock, superphosphate, farm fertilizers, lawn and garden fertilizers, feed phosphorus supplements ... dicalcium phosphate and defluorinated phosphate ... potassium silicofluoride and potassium fluoroborate.

February-March, 1961
MODERN MATERIALS and RESEARCH are the mark of

Quality Leadership

Efficiency of performance and long, trouble-free service life are the true measures of any water system's quality. That is why Dempster with more than 80 years of Quality Leadership has never been afraid to seek, test and adopt new and modern materials which could improve the performance and life of Dempster Water Systems. When exhaustive and exacting tests showed that certain plastics—such as phenolics and nylon—could actually reduce friction and wear, Dempster was a leader in adapting them to water systems. Just as Dempster pioneered the use of stainless steel shafts over 30 years ago, Modern Materials, helping to make Dempster Water Systems more efficient and increasing their service life, bring to you lower operating and maintenance costs—more value for your water systems dollar.

Ask your Dempster Dealer for Detailed Information
DEMPSTER MILL MFG. CO.
Home Office and Factory—Beatrice, Nebraska

Circle Number of Booklets You Want—Clip and Mail
79 80 81 82 83
Send to:
The National FUTURE FARMER
Box 29, Alexandria, Virginia
LIVESTOCK JUDGING CONTEST

WHAT KIND of livestock judge are you? In this contest you can test your skill against the judges. Study all five classes carefully and then place them in the order you think is right. All you have to do to win a prize is place three classes correctly.

Prizes
Every contestant who places all five classes correctly will receive an official FFA knife. And, fellows, it’s a beauty. The three blades are made of razor steel and the handle is genuine bone stag. A sterling silver FFA emblem is mounted on one side.

Place four classes correctly and you will win an official FFA plastic billfold with your name and the FFA emblem stamped in gold.

If you place three classes correctly, you will receive an official FFA ballpoint pen.

Wait a Minute! Before you start, read the rules carefully.
1. Use only the official entry blank. No others will be accepted.
2. Paste your entry on a post-card. This facilitates judging. Others, however, will be accepted.
3. You must place all five classes.
4. In each class, rank the animals in the position you think they belong. If you think “B” is best in a class mark “B” on the first line under that class. Continue until you have placed all four animals. Your fourth place animal should be the one you consider least desirable. Do this this for all five classes.

OFFICIAL ENTRY BLANK

Mail before February 20, 1960 to:
Livestock Judging Contest The National Future Farmer
Box 29, Alexandria, Virginia

<table>
<thead>
<tr>
<th>Hampshire Ewe Lambs</th>
<th>Brahman Heifers</th>
<th>Jersey Cows</th>
<th>Landrace Gilts</th>
<th>Angus Bulls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your Name (Please Print)
R.F.D. or Street Number
City... State...

Be sure to keep a copy of your placings—no entries will be acknowledged or returned. Check your skill against the official placings which will be in the April-May issue of The National FUTURE FARMER. Now go to it! The contest closes February 20th!

Four More Classes on the Next Two Pages
Lou Groza kicks another three points

WHEN YOU think of a scoring leader in professional football, you usually think of a flashy halfback or a fancy pass-catching end. In reality, the record for the most points scored in a career should go to Lou Groza, who was an offensive tackle for the Cleveland Browns. Groza recorded 1,001 points in his 14 years in professional football—all in the space of three or four steps. He is the greatest place kicker the game has ever known.

Lou hails from Martins Ferry, Ohio, and has been playing football most of his life. Two older brothers in the game probably encouraged him and gave him some of his early lessons in sports. Football was not his only sport, as he also played basketball and baseball for Martins Ferry High School. Lou won ten high school letters: three each in football and basketball and four in baseball. He was captain of each team in his senior year, leading the basketball team to an Ohio Class A Championship and was the most valuable player in the tournament.

Lou was approached by many college scouts and decided to go to Ohio State. After playing on an unbeaten Freshman team in 1941, Lou went into the Army and served with the Army Medical Corps in the Pacific area. Many times Lou would get his buddies to help set up some sort of goal posts to practice his place kicking and keep in shape.

When Lou came back from service he passed up his college career to join his former coach, Paul Brown, who was coaching the Cleveland Browns in the old All-American Conference. Lou and the Browns played in this league until 1950, and he scored a total of 259 points, 169 extra points, and 30 field goals.

During his first two years with the Browns, Lou was a specialist—the place kicker. Most of all he wanted to be a football player and besides his work and practice at his specialty, he worked just as hard with the team in regular drills. Lou has the build for a good lineman, standing 6'3" and weighing 240 pounds. After two years on the bench, he was given a chance at offensive tackle in 1948 and was the Browns No. 1 tackle for the next 11 years.

When the Browns joined the National Football League in 1950, it was the opinion of many that other N.F.L. teams would walk over them. That year the Browns won the League title. Lou Groza kicked a field goal with 20 seconds left in the title game to beat the Rams and give the Browns their first N.F.L. Championship. His field goals won five games for the Browns that year, and he also scored the only touchdown in his entire career.

This was to be the pattern of Lou's career. He soon earned the nickname of "The Toe," and that toe kept him up with the League's leading scorers through the years. He set new league records in '52 when he kicked 19 field goals in 33 tries and had 32 extra points in 32 tries. His 89 points were good for third place honors. In '53 he moved up to second in scoring with 108 points and bettered his field goal mark with 23 out of 26 tries. In the next two years, he finished third and fifth in that order.

Lou Groza hung up his cleats during the training season in September of 1960. He is still ranked as one of football's greatest offensive tackles and the greatest place kicker of all time. He has been named to several All-Pro teams and was voted a tackle spot in the annual Pro-Bowl Game nine out of 10 years. With his 1,001 points scored, he is the first player in football history to reach the 1,000 mark. Among his records are: scoring in most consecutive games—112; most field goals—130; and most field goals in one season—23. In world championship play, he is the all-time scoring leader with 40 points; kicked the most extra points—22; most field goals—6; and has the longest field goal—a 52 yarder. In 14 years, Lou attempted 529 extra points and only missed 17 for a .968 average. Those are some of the marks that today's place kickers will have to shoot for, and it won't be easy.
Agriculture Today
(Continued from Page 32)

land for its Sunday issue. This requires the net annual wood growth from 500000 acres every year.

What does the farmer receive for his efforts? From each dollar the American housewife spends for food, the farmer gets 38 cents. The farmer gets 2.4 cents for the corn in a 26-cent box of cornflakes, 62 cents for each $1 spent for choice grade beef, and 2.3 cents for the wheat in a 20-cent loaf of white bread. The farmer gets about 29 cents for the cotton in a man’s $4 business shirt.

Most other businesses would soon go broke if they had to buy and sell like the farmer does. The farmer buys his supplies at retail, then sells his products at wholesale. But each year the farmer produces more products, more efficiently, for the welfare of every man, woman and child in the United States.

The percentage of the housewife’s dollar spent for food is going down. In 1929, twenty three and one-half percent of our disposable income went for food and twenty two and one-third percent in 1939.

In comparison, the Japanese spend about 42 percent of their disposable income for food, West Germans 45 percent, and Russians 56 percent.

One hour of work in a factory buys much more food today than it did 20 or 30 years ago. Pay for one hour of factory labor would buy:

- Milk: 17.6 pints in 1959; 10.4 pints in 1939; 7.8 in 1929; or
- Bacon: 3.3 pounds in 1959; 2 pounds in 1939; 1.3 in 1929; or
- Round Steak: .21 pounds in 1959; 1.8 pounds in 1939; 1.2 in 1929.

What have all these figures meant? They show that even though the farmer pays more for the supplies he uses, he sells more agricultural products for less than he did 30 years ago. How? By efficient production and good management.

Agriculture is not a dying industry—not by any means. Food is the basic necessity of life and the American farmer will see to it that this nation is well-fed.
The First One Doesn't Have A Chance!

The driver had picked up a beatnik hitchhiker. At a road crossing, he asked him if anything was coming. Looking down the road, the beatnik said, "Big dog. Dad. Big dog!"

So the driver pulled out in the road. Suddenly—Crash! Twenty-four hours later the driver awoke in the hospital and said to the beatnik in an adjoining bed, "I thought nothing was coming but a big dog?"

"Man, like a Greyhound," replied the beatnik.

Phillip Pool
Broken Arrow, Oklahoma

Joe: "Did you ever tickle a mule?"
Moe: "No."
Joe: "Try it sometime. You'll get a big kick out of it."

Clifford LaVenture
Hudson, Wisconsin

A rookie from the backwoods walked by a brisk second lieutenant.

"Mawnin" drawled the rookie. The outraged officer gave him a stinging lecture on military courtesy, with special emphasis on saluting.

"Goshamighty," said the rookie, "if I'd known you was gonna carry on like that, I wouldn't of spoken to you at all."

Lehman Ray
Lewisburg, Tennessee

He (Unknowingly starting their first quarrel): "I wish I could get some good cookies like Mother used to make for me."

She: "And I wish I could get some good clothes like Father used to buy for me."

Charles Mullins
Asher, Oklahoma

The National Future Farmer will pay $1 for each joke published on this page. Jokes should be submitted on post cards addressed to The National Future Farmer, Box 29, Alexandria, Virginia. In case of duplication, payment will be made for the first one received. Contributions cannot be acknowledged or returned.
ALL NEW FOR '62

OFFICIAL FFA CALENDARS FOR YOUR CHAPTER'S YEAR-AROUND PUBLIC RELATIONS PROGRAM!

For you chapter presidents, other officers, and members who provide the spark for new chapter projects... Don't let another year go by without participating in the National FFA Calendar Program.

FFA calendars for 1962 have been completely redesigned to meet the needs of a businessman sponsor in your community.

BUSINESSMEN WILL ORDER 1962 CALENDARS EARLY IN 1961 SO YOU MUST CONTACT YOUR PROSPECTIVE SPONSOR RIGHT AWAY!

TALK IT OVER AT YOUR NEXT CHAPTER MEETING. IF YOUR ADVISOR OR CHAPTER PRESIDENT HAS NOT RECEIVED COMPLETE INFORMATION—WRITE US FOR DETAILS.

For chapters who have been unable to participate in the National Calendar Program for reasons beyond your control, write and tell us why. We have special information for you.

The National
Future Farmer
Box 29, Alexandria, Va.
Look at the latest in tractors—

THE PERFORMANCE FLEET FOR '61

Over the horizon they come—five new Allis-Chalmers tractors that meet farming costs head-on!

Lines clean and low ... with fresh two-color styling ... they do more than stop the eye. They start a whole new trend in dollar-making farming.

From the cost-squeezing 2-plow D-10 and D-12, to the dynamic new 4-row D-15, 4-plow D-17, and a new compact crawler, they make your work power-easy at lower cost.

Power-boost your income with the BIG STICK and TRACTION BOOSTER system. Get more performance out of fuel. How would you like to save up to 25 percent a year on fuel cost? Many farmers do, with D-Series tractors.

Find out how much more your tractor investment can do this year in a fully equipped tractor—automatic traction, power steering, wheel spacing, live PTO, implement hydraulics—everything! Over 50 different models! Ask your Allis-Chalmers dealer to demonstrate these efficient new dollar-makers—ready to roll for you. Allis-Chalmers, Farm Equipment Division, Milwaukee 1, Wisconsin.

Brand New D-15

Newest yet! The gasoline or diesel D-15 takes 4 rows—over 13 feet—at savings that can make every fourth row a bonus. TRACTION BOOSTER system with Power Director matches traction and power to load ... without fuel-wasting dead weight or needless soil compaction. Up to 25 percent more work per gallon of fuel.

Get the dollar-making difference with... ALLIS-CHALMERS