FREE!

Publicity and Public Relations Materials for NATIONAL FFA WEEK Next Year!

This special offer lets you take care of a lot of publicity and public relations for your chapter in one easy project.

HERE'S ALL YOU DO:

Become a participating chapter in the Official FFA Calendar Program and send in orders for at least the minimum quantities on two of the three Official FFA Calendar styles.

HERE'S WHAT YOU GET:

First, and most important, you'll be participating in the Official FFA Calendar program, and will have the benefits of FFA Calendars hanging in your community all next year. Calendars that tell the Vo-Ag and FFA Story.

PLUS YOU'LL RECEIVE A FREE SPECIAL PACKAGE OF MATERIALS TO HELP YOU PROMOTE YOUR CHAPTER DURING NATIONAL FFA WEEK NEXT FEBRUARY. THIS OFFER GOOD ON ALL THREE PARTICIPATION PLANS. SEND FOR DETAILS.

WHO CAN USE OFFICIAL FFA CALENDARS?

PLAN A—Business firms can advertise their products and services on FFA Calendars through a sponsorship arrangement with the FFA.

PLAN B—FFA Chapters and State Associations may order and give away or hang FFA calendars as a public relations activity.

PLAN C—FFA calendars may be ordered in any quantity or singly from a special group of preimprinted calendars. Anyone may order.

TO TAKE ADVANTAGE OF THIS OFFER, ASK YOUR CHAPTER ADVISOR TO SEND FOR AN OFFICIAL FFA CALENDAR PROJECT KIT AND MORE INFORMATION!

MAKE 1965 AN OUTSTANDING PUBLIC RELATIONS YEAR FOR FFA
Buying a used sports car?
Want to know what the pros look for?

Buying a sports car is very different from buying a family sedan. Here are a few tips to help you get the pleasure and performance you’re paying for.

1. Take a casual walk around the car. Tap the rocker panels to make sure they’re sound. Any evidence of patching? Do wrinkles in the body skin suggest extensive body repair? Get squarely in front of the car and squat down. Does the car stand up nice and straight? If the car can’t pass muster on all these counts, be on your guard and get an explanation.

2. How big are you? If you’re six-feet don’t settle for the tinier models. A long trip with your knees under your chin will make you hate the little monster instead of enjoying the trip of your life.

3. Give the tires a good going over. Is the tread still good and square or is it hollow or rounded? Hollow means they’ve been over-inflated. Rounded means under-inflated. They both mean poor care of the car.

4. If the car has spoke wheels, play the spokes like a guitar. They should give a clear crisp tone... should all give about the same note. Untuned spokes mean warped wheels at worst, poor care at best. Don’t pay top dollar for a poorly maintained car.

5. Make sure parts and service are available nearby. Your pride and joy will turn into an object of abomination towards the end of the third week you’re waiting for a distributor cap. Check the yellow pages to see what makes are sold and serviced in your area.

6. What do you intend to use the car for? If you enjoy driving by yourself or with one friend, a sports car’s just the ticket. If you like to haul several friends around, better make sure Dad isn’t declaring the family buggy off limits.

7. Last but not least, have a mechanic friend give the car a good going over. It may cost you a few dollars, but if it saves you from buying a lemon, it could be the smartest money you ever spent.

8. What tire is first choice for original equipment on new cars? Firestone—with good reason.

YOUR SYMBOL OF QUALITY AND SERVICE

Firestone

A Sponsor of National Student Traffic Safety Program, National 4-H Automotive Program and FFA

August-September, 1964
FEATURES

17 Iowa's Citrus Chapters

IT WAS 16 YEARS AGO WHEN FUTURE FARMERS AT THE LAKE CITY CHAPTER, IOWA, BEGAN TAKING ORDERS FOR SOUTHERN CITRUS FRUIT. ONE OF THE KEY MEN, AURELIA ADVISOR CHARLES SCHMIDT TOLD US HOW THE PROGRAM HAS GROWN TO INCLUDE 42 CHAPERS AND NOW HANDLES $47,000 ANNUALLY WHILE SERVING CITRUS TO OTHERS.

22 Protection From Above

BEWARE OF LIGHTNING! FOR FARMERS, IT HAS BECOME ONE OF NATURE'S MOST RAPIDLY GROWING PROBLEMS AS BARNS AND LIVESTOCK ARE DESTROYED. ONE BOLT CAN HARBOUR POWER ENOUGH TO LIFT THE U.S. UNITED STATES SIX FEET INTO THE AIR, BUT IT CAN BE CONTROLLED, AS OUR STORY POINTS OUT, BY PREPARATION FROM YOU.

30 Future Foresters

AS THE COMMUNITY NEEDED MORE AND MORE FORESTRY-TRAINED YOUTH, STEVENSVILLE CHAPTER, MONTANA, BEGAN A TRAINING PROGRAM ON CHAPERS OWNED PROPERTY. ADVISOR PHIL BRATTON HELPED FORM A YEAR-ROUND PROGRAM OF PRACTICAL FORESTRY WORK THAT IS NETTING A SCHOLARSHIP FUND FOR COLLEGE-AGE MEMBERS.

DEPARTMENTS

Your Editors Say 6
From The Mailbag 8
Looking Ahead 10
Photo Roundup 48
Free For You 51
Something New 52
Advertising Index 53
Sportrait 53
Joke Page 54

Our Cover

Right on target are these two Future Farmer sharpshooters, examining their bull’s-eye with a state FFA officer.

Ohio’s summer FFA camp is not unlike other states who combine organized sports with FFA business sessions at summer meetings.

Safety with guns, as well as skill in handling them, has become an important part of training for rural life.

PHOTO BY BOB E. TAYLOR

THE NATIONAL FUTURE FARMER is mailed every two months on the following dates:

January 20...........FEBRUARY-MARCH Issue
March 20................APRIL-MAY Issue
May 20..................JUNE-JULY Issue
July 20..............AUGUST-SEPTEMBER Issue
September 20........OCTOBER-NOVEMBER Issue
November 20........DECEMBER-JANUARY Issue


Single subscription is $1.00 per year. Single copies 10c in U. S. CHANGE OF ADDRESS: Send both old and new addresses to Circulation Department, The National FUTURE FARMER, Alexandria, Virginia 22306.

MAGAZINE STAFF

EDITOR, Wilson W. Carnes
BUSINESS MANAGER, V. Stanley Allen
EDITORIAL
Howard R. Carter and Paul S. Weller Associate Editors;
Gail H. Butler and Isabella M. Busbee Editorial Assistant.
Circulation Assistants: Norma Salvatore, Zelma McShane, Adriana Stagg, Beulah Keeter, Ramona Fotherill.
Promotion Assistant, Jim Hayhurst.
ADVERTISING
John C. Foltz, Advertising Manager

NATIONAL ORGANIZATION OF FUTURE FARMERS OF AMERICA

BOARD OF DIRECTORS
Chairman, A. W. Tenney

FFA EXECUTIVE SECRETARY
Wm. Paul Gray

PUBLIC RELATIONS DIRECTOR
John Farrar

NATIONAL OFFICERS
President
Nels Ackerson, Indiana

Vice Presidents
James Taets, West Virginia
Marvin Gibson, Tennessee
Jan Turner, Utah
Joseph Coyne, Illinois

Student Secretary
Jon Ford, Oklahoma

The National FUTURE FARMER
THIS MAN IS NO ASTRONAUT

He looks like he's wearing a space suit, but he's not. He's actually standing on the outside and just reaching in through the suit to do his work.

But he's doing a special job, and he's helping to push a new dimension into scientific research. He's reaching into a germ-free, air-controlled chamber, and packaging Pur-Pak Chows. They're called Pur-Pak because they're pressure-processed to be free of harmful pathogens.

These special Chows are meeting a rising need of science. They're adding a new measure of nutritional and bacteriological control to critical experiments with laboratory rats, mice and hamsters.

To produce these precision Chows, it takes a new plant. It takes a whole new set of machinery that kills microorganisms. It takes this germ-free packing and sampling room, and the "space suit," and the air-filtering systems. It takes a new laboratory to test regular samples of the new Chows to make sure there are no unwanted "bugs" in them.

Whatever it takes, Purina has it in operation. Now Pur-Pak Chows have joined the continuous line of new products from Purina Research.

Ralston Purina Company • Checkerboard Square • St. Louis, Missouri

August-September, 1964

5
WE ARE living in a world of change. Developments are constantly taking place that affect our daily lives, and nowhere is this change more apparent than in agriculture. It is inevitable that organizations must, from time to time, make a critical review of themselves to see if changes are desired in view of new conditions and, if so, what changes are needed to more effectively serve its membership.

The FFA finds itself in such a position today. Do we need to make changes in the FFA—the name, the creed, the rituals, and other phases of the organization? If so, what are the changes that should be made and can be made without destroying our rich heritage of the past?

No one person seems to have all the answers. Not everyone is convinced changes should be made. However, there are strong feelings on the part of many that changes should be considered.

One state association has passed a resolution asking that the name not be changed. Another state has a committee reviewing what changes they feel are needed. The national organization has a committee appointed from the Board of Directors and the national officers to compile the suggestions being made, and the matter will be discussed further at the July meeting.

The following suggestion from a local chapter came to the Magazine and reflects the feeling of one group. Your chapter may agree or have a different opinion entirely. But to stimulate your thinking, here is what they had to say.

"The members of the Pinedale, Wyoming, FFA Chapter are proud to be called Future Farmers, but a more appropriate name would be 'Future Ranchers of America.'

"Farming to us means crops along with its seed bed preparations, planting, cultivating, and harvesting.

"Ranching means livestock with calving and lambing times, roundups, brandings, fence repair, haying in the fall, and feeding hay in two feet or more of snow from a horse-drawn sled for seven months of winter that sometimes reaches temperatures of 50 degrees below zero. With approximately 30 frost-free days during the year, crops (or farming) are not too practical in our area.

"We do not want to change the name of the Future Farmers of America, but we would like to change a few words in our Future Farmer Creed so that it will meet the beliefs of all members of the FFA.

"Let's look at the picture. We all agree that agriculture has changed since 1930. Rural America's population has become smaller and smaller, but production has increased through modern agricultural techniques. More rural boys are turning to related fields of agriculture rather than returning to the farm or ranch. Town and city boys are becoming more interested in agricultural occupations to fill the needs of available jobs. Should they say, 'I believe in the future of farming'? Wouldn't it be more appropriate for them and all Future Farmers to say, 'I believe in the future of agriculture?'

"If agriculture has changed since 1930, then why can't we change our Creed to meet the modern agriculture, for you see, the Future Farmers of America Creed was written and copyrighted in 1930.'

A suggested revised creed followed, which for the most part, substituted the word "agriculture" for the word "farming." Do you agree? Why not write the Editors and let them know how you feel about changes in the FFA?

Wilson Carnes, Editor
Stay out of the red. Texaco Farm Service can help you save up to 15% on fuel costs.

Ask the experts...the veteran mechanics who know farm machinery best and are trained to keep equipment shipshape. They'll confirm what your Texaco Farm Service Distributor tells you: Under average conditions, a better-than-routine maintenance program, plus top-quality petroleum products, can help you save up to 15% on fuel costs.

For example: If yours is a typical late-model tractor, it generally uses about 5 gallons of gasoline per hour. Roughly, the cost is about $1 per hour.

Now, suppose you normally keep that tractor working 10 hours a day. With sound preventive maintenance—and that means using a program that is steady, efficient, and correct for your particular circumstances—combined with the best petroleum products available—from Texaco—you can reduce fuel costs about $1.50 per day. Multiply that by the number of days you work in one season, and you'll have a good idea of the kind of savings that can help keep you out of the red.

Talk it over with your Texaco Farm Service Distributor. He'll give you all the information you'll need for servicing, maintaining, and lubricating every piece of equipment on your farm.

He can also supply you with the Texaco products that can help you farm more efficiently and economically. Give him a call.

Here are just a few of the top-quality petroleum products from Texaco for sound preventive maintenance and efficient farm operation: 1. Marfak, the superior lubricant that stays on the job. 2. Havoline Motor Oil stops waste because it stops deposits best. 3. Texaco Multigear Lubricant EP. 4. Regal Oils for hydraulics. 5. Famous Fire Chief gasoline.
Lakota, North Dakota

In your April-May issue of the Magazine under "Here By The Owl," I was quite amazed at some of the suggestions on public speaking.

Indeed, one would get the attention of the audience if one were to follow a suggestion given there. I feel the audience would watch enthralled if the speaker were to get down on the floor, lean on the podium, rap on it, then get up and walk around it! By now, they'd have had it!

Mrs. John Engesather

You have a point with your comments on getting audience attention. Podium is what the speaker stands on and lectern is what he leans on.—Ed.

Minnesota, Minnesota

I am a 14-year-old freshman, soon to be a sophomore in high school, and a Green Hand in the Minnesota Chapter of the FFA. I have been in FFA for one year, and it has been fun and educational.

The Minnesota Chapter has 24 acres of corn. This is the first year that we have had land, and it's been hard work but fun.

I enjoy The National FUTURE FARMER very much.

Gary B. Johnson

Hopkinsville, Kentucky

I appreciate receiving The National FUTURE FARMER Magazine, and thank you for sending it. This Magazine helps me keep up to date with advancements in farming as well as with the farmers of our country.

Thank you again for your interest in the young men in agriculture.

Colonel Dink Embry
Farm Director, WHOP

Fountain City, Tennessee

I received my June-July issue of The National FUTURE FARMER today. I liked it very much because of the many interesting articles in it and the colored photographs on farm equipment. They seem more real than black and white.

Here is my order for the booklets under "Free For You" and "Something New." Thank you for sending in my order. Thank the companies, too, for all the information. I have enjoyed every book or booklet that I have received through the Magazine.

I also received information in the mail today from Allis-Chalmers. The people who work there are very nice, and Mr. Foley was kind and helpful in sending me what I wanted. He also wrote me a very nice letter to congratulate me on my graduation from high school this year and to wish me well in my future with farming.

Ronnie Humphrey

Take a tip from top raisers... FEED THE

Holstein breeder N. Newcomb, Cods Point Farm, Trappe, Md.

"Our calves and heifers both benefit from the MilkBank Boost. Kaff-A Milk Replacer gives us healthier, heavier calves, cuts scouring. Kaff-A Booster Pellets help heifers grow faster, breed sooner."

Manford Stewart, Frankfort, Ind., leading Hampshire breeder

"We produced 4,000 certified pigs last year, and Kraylets is a key part of all our feeding programs. The Milk-Bank Booster gives us bigger, healthier litters, better feed efficiency, less backfat. Keeps sows in good condition."

Henry Kruger, owner of Kruger's Poultry Farm, Dinuba, Calif.

"During a recent cold snap, some of my neighbors had 50% drop in production. My flock held its 76% average, thanks to the Milk-Bank Boost of Pex Pellets. I get 80% large eggs and less culls, using Pex the year around."
Climax, Georgia

I enjoy The National FUTURE FARMER very much and look forward to each new edition. The articles on fishing are very interesting as well as those on other subjects.

This is my second year in vo-ag. I had a beef steer this year and hope to have two or more next year. I plan to have one or two gifts, too.

I will hold the office of secretary of our chapter for 1964-65. We now have 45 members in the Climax Chapter.

Johnny Lakin

We wish you success in your agricultural endeavors, Johnny, and hope that your plans become a reality soon.—Ed.

West Liberty, Ohio

I enjoyed your Magazine very much, and my only regret is that it does not come every month.

The FFA has done much for me. I received my State Farmer Degree in the Ohio Association this past spring as a junior in high school. I am now renting a 120-acre farm and am trying to get a start in farming.

Thank you for the information and continue to keep up the good work.

Glenn Lovett

Nacogdoches, Texas

It has been a real pleasure to receive your Magazine for the past year. I really enjoy reading such an educational publication. As a reporter for the Nacogdoches Chapter, which has 100 members, I would like to congratulate you for your outstanding work as editors and staff members of such an excellent publication. May the quality of the Magazine increase and continue to impress its readers as it has done in the past.

James Jackson

Pennsboro, West Virginia

I am a member of the Pennsboro Chapter of the FFA, Pennsboro, West Virginia. I am writing to you for information on fitting and showing dairy cattle. Any information you might send would be appreciated.

I receive your Magazine and enjoy reading it very much. Thank you.

Dean Napier

We are enclosing a booklet from our files entitled "Selecting, Feeding, and Showing Dairy Cattle." This booklet should provide you with some helpful information. Dean.—Ed.

Paris, Kentucky

I am a junior at the University of Kentucky but still farm full-time in partnership with my dad. I enjoy The National FUTURE FARMER very much, as does my entire family. The Magazine gets larger and better with each issue.

Keep up the fine work, as I know many people enjoy your tasks.

Donald Hutson

Greeneup, Illinois

I am writing in behalf of the Silver-leaf 4-H Home Economics Club. We are sponsoring a 19-year-old Nigerian boy this year. He wishes to receive farm magazines and letters from the United States.

The Club chose your Magazine as a good representative of the farm youth of North America. Please find enclosed a check. Send the Magazine to John Fonegan, 17 Forestry Street, Lagos, Nigeria.

Vivian Bishop

Thank you, Vivian, for your kind letter and vote of confidence. We are entering John on our subscription list immediately.—Ed.

MILK-BANK BOOST

Milk by-product feed boosters by KRAFT

F. Miller, Mgr., Santa Rosa Stables, Texas, Waggoner Quarter Horse breeders

"Pace Pellets give our colts what they need—a fast, healthy start. The Milk-Bank Boost of Pace is part of our program for mares, studs and show horses, and we think it has a lot to do with keeping them in top condition."

Minnesota Dairyman Archie Zarling raises own Holstein herd replacements

"Kaff-A Milk Replacer gives me big, thrifty, healthy calves. And the Milk-Bank Boost of Kaff-A Booster Pellets produces heifers that can be bred at 12 to 13 months. It keeps my cows' milk production high."

W.W. Callan, owner of Callan Ranch, Waco, Tex., Santa Gertrudis breeder

"We give our showcase herd the Milk-Bank Booster, Kaff-A Booster Pellets. It brings out the best qualities of our stock, helps them gain faster, stay in top health and condition, and gives them extra bloom and gloss."

KRAFT FOODS AGRICULTURAL DIVISION, 500 Peshtigo Court, Chicago 90, Ill.

August-September, 1964
INSTALL TILE WITHOUT DIGGING

The “Mole,” a machine developed jointly by Ohio researchers and the USDA, installs field drainage tile without digging ditches. Crops and soil are not disturbed, as the tracked “Mole” pulls a large vertical knife-like blade beneath the ground attached to a bullet-shaped slug that opens a hole beneath the surface. A special zippered plastic lining, mounted in 600-foot rolls, is pulled into this hole and interlocked. The machine will install 2,000 feet of tile per hour at between 10 cents and 12 cents per foot.

COMPUTER ANALYZES CROP WEATHER

An electronic computer is accurately determining the effects that weather will have on crop growth on a county-level basis. It is now possible to forecast what kind of crop management is necessary to get maximum profits in the season ahead. The computer digests such information as soil conditions, rainfall, moisture run-off, and temperature and humidity against the history of the area’s soil since 1960. Results are sent to area farm experts to localize expected crop growing conditions. The system was developed by the International Minerals and Chemicals Corporation.

QUICK-FROZEN MILK SHAKES

Milk shakes in a variety of flavors served in vending machines may be a reality in a short time, according to Clemson researchers. The new method of using milk features mass-produced milk shakes that are quick frozen hard as a brick, then sent to vending machines in factories and cafeterias across the country. You need only to select your milk shake, get it from the vending machine, and step over to an oven that uses micro waves to thaw it for drinking. In a matter of seconds the shake is thawed to the right consistency. The idea is already in limited use.

SPRAY MAINTAINS EGG QUALITY

Spraying freshly laid eggs with an aerosol oil treatment called “Sta-Good” is helping reduce weight loss and maintain quality up to 86 percent over non-sprayed eggs. The oil spray seals the pores of the eggs, retarding the loss of carbon dioxide and maintaining a healthy albumen condition. Sprayed at gathering, the eggs can be washed and cooled in a normal manner. Tests show that untreated eggs often lose up to 573 milligrams in weight in five days after laying.

MECHANICAL CHERRY SORTER

Many of Michigan’s tart cherries are being sorted by an electronically-operated cherry sorter that separates the fruit into two grades at the rate of 3,450 cherries per minute. Sorting the equivalent of a ton of cherries every hour, a drum moves the cherries through a viewing chamber where electric eyes check them for bruises and blemishes. The machine determines differences by color filters and photo tubes, and unwanted cherries are ejected by a jet of air onto a different tray and belt. One company is using a similar sorter to sort diced carrots and potatoes destined for soup.

TRUNK GROWTH TELLS WATER NEEDS

Dendrometers that were designed to measure the growth of a tree by changes in its trunk are being used to determine irrigation schedules and cover crop practices. Oregon specialists have attached sensitive dendrometers to tree trunks on demonstration plots and measured trunk growth to within 1/5,000 of an inch. Maintaining a record of the tree’s growth, researchers can tell when and how much irrigation is needed, as well as what cover crops are best suited to the environment of the tree.

LATEST IN DAIRY PRODUCTS

Scientific progress has brought out instant dry cheese, dry butter in powdered form, and a frozen pudding that is eaten like ice cream. The instant cheese is a product of Michigan State University research and is made by spray-drying re-liquefied cheddar or blue cheese. The dry powder needs only water added to become edible cheese. The “dry” butter has several ingredients substituted before it is dried into a powder. And the frozen “Bokoo” is made from milk, cream, sugar, and eggs frozen in several flavors and sold like ice cream, although it is a pudding.
Lee's Master Tailor keeps in touch
(He knows the score when he makes his famous tapered slacks)

If you think he's a stodgy old coot, you're wrong. He's hep. He makes Leesures by Lee. The only slacks in the world that are just your speed. Lean. Hip-hugging. And tapered just right. He gives you the lean look you want, but he's fussy as ever about the quality tailoring he wants. That's why Leesure slacks fit the way they do. As lean as slacks can be... with just enough room to spring for a pass. Choose from a wide selection of twills, polished cottons and rich corduroys. In classic and continental styling. Lee's high scoring colors: Bone "White," Sand Beige, Sea Foam, Green Briar, Taupe, Cream, Burnished Green, Wheat, Faded Blue, Denim Blue, Loden, Black. From $4.95 to $7.95.

Leesures by Lee
ACKERSON ISSUES
Call to Convention

NATIONAL FFA President Nels J. Ackerson has issued his call for state associations to send delegates to the 37th National FFA Convention, officially scheduled for Kansas City's Municipal Auditorium, October 14-16.

State associations in good standing with the national organization are requested to send two official delegates plus two alternates from the active membership. Official delegates need to arrive in Kansas City before 10 a.m., October 13, to register. Also on hand that week should be candidates recommended for the American Farmer Degree, for national office, and those receiving awards. Local chapters may send six members, or 10 percent of their total membership, not including those taking part in the program.

A Vespers Program will introduce the Convention on Tuesday evening, while a matinee performance of the American Royal Livestock and Horse Show on Friday will highlight the last day. In between, sessions will execute business, recognize outstanding achievements, demonstrate leadership training, and elect new officers.

"The highlight of the FFA year," President Nels Ackerson calls it. See you there?

BUSINESS SESSIONS PLANNED FOR FFA

THREE important FFA meetings will be held in Washington, D.C., during the week of July 27-31. Meeting first, the Board of Trustees of the Future Farmers of America Foundation, Inc., will convene on July 27 and 28. They will review the program of awards, budget, and other FFA Foundation business.

Donor Day on Wednesday, July 29, will bring together approximately 100 representatives of donors to the FFA Foundation for a meeting of the Foundation Advisory Committee. Meeting jointly with this group will be the Foundation Trustees and the national FFA officers. After a business meeting in the morning, the group will travel south to the FFA building for a picnic lunch and a tour of the FFA Magazine and Supply Service facilities that afternoon.

Thursday and Friday, July 30-31, are scheduled for a joint meeting of the FFA Board of Directors and the national FFA officers. National Convention plans and other organization business will fill the agenda for this meeting.

NVATA OFFICERS MEET

EXECUTIVE Committee members of the NVATA, the professional organization for vo-ag instructors, met in the Nation's Capital from June 29 through July 2. The four-day meeting featured important business sessions, with time-out for side trips to the FFA Building, National FFA Office, and agricultural associations in Washington.

The officers visited The National FUTURE FARMER and the FFA Supply Service on Tuesday, June 30, for a brief meeting with staff members and an accompanying tour through the Magazine and Supply Service facilities. A visit to the National FFA Office in Washington came later that afternoon for the officers.

Present for the sessions were Walter Bomeli, president, Bangor, Michigan; Wenroy Smith, past president, Saltsburg, Pennsylvania; Robert Howey, treasurer, Sycamore, Illinois; James Wall, executive secretary, Lincoln, Nebraska; and Vice Presidents Jim Durkee, Laramie, Wyoming; Sam Stenzel, Russell, Kansas; Harold Crawford, Sac City, Iowa; Winfield Weaver, Delphi, Indiana; and Jim Givens, Winchester, Virginia.

Others present were Carl Widger, Munnsville, New York, who was on hand to assume the duties of Givens, who resigned effective July 1, and Floyd Johnson, York, South Carolina, NVATA representative to the American Vocational Association.
The power you need for the profit you want starts with Perfect Circle Piston Rings

...THE BRAND MOST FARM EQUIPMENT MANUFACTURERS SPECIFY

Worn rings cost you power, operating hours, oil. Not very profitable. Re-ring with dependable rings that help prevent power loss and money loss...Perfect Circles. PC makes piston rings for all types of engines — rings that help restore original engine efficiency, cut operating costs, promote free oil flow to eliminate clogging. Most farm equipment manufacturers are among the manufacturers who specify Perfect Circle as original equipment and/or replacement rings for 127 brands of vehicles and engines. For full-power, full-profit tractor and truck operation, do as most farmers do—install replacement rings made by Perfect Circle when you overhaul your engines.

PERFECT CIRCLE

PistonRings • Engine Parts • Chassis Parts • Cylinder Liners • Precision Castings • Turbine Blades and Wheels • Electronic Programming Equipment • Speed Controls • Hagers-town, Ind. • Plants in U.S.A., Argentina, Australia, Brazil, Canada, France, Mexico.

August-September, 1964
These BFG nylon Power-Grips put you in business...

And they cost less than most tires made without nylon. That's why so many of today's business-minded farmers prefer the Power-Grip tire. BFG nylon cord construction is one of the biggest extra values you can get in a tractor tire. The nylon in the Power-Grip tire is actually stronger, pound for pound, than steel. It's your best insurance against tire-killing jolts from rocks, roots and stumps.

- How about the Power-Grip tread? We've built the cleats 29% wider and 9% higher at the shoulder than any replacement tractor tire we've ever made. Notice that the cleats are curved to keep them rigid so they bite deep.

You get top traction in all types of soil... extra traction to get work done sooner. Stop in at your nearest BFG Farm Tire Service Center, and see this famous Power-Grip tire. And while you're there, be sure to see the two other new farm tires your BFG man is introducing: the new Multi-Ring front tractor tire, and the new Rib Implement tire. He'll be glad to show you the complete B.F.Goodrich line of tires for modern farming, and tell you how you can get longer, more efficient service from them. Why not stop in and see him soon? The B.F.Goodrich Company, Akron, Ohio 44318.

B.F.Goodrich
NYLON FARM TIRES

The National FUTURE FARMER
This North American Combine Plant at Brantford, Ontario, was officially opened in ceremonies held there on June 9.

Massey-Ferguson OPENS NEW PLANT

Combines for American farms roll off the MF assembly line.

A NEW 13.5 million dollar combine plant has been opened by Massey-Ferguson at Brantford, Ontario. The Company expects about two thirds of its annual production of grain harvesting combines will be shipped for sale in the United States farm market. The plant will have an annual production capacity of approximately 15,000 units on a two-shift basis. Speaking at the dedication ceremonies, company president, A. A. Thornbrough, said the new plant "... represents an investment in the future of North American agriculture."

Significantly, 1964 marks the twentieth anniversary of the removal of all tariffs on farm machinery between the United States and Canada. This "common market" permits manufacturers in both countries to ship farm equipment to the other without the payment of tariffs.

50 YEARS OF EXTENSION

The Agricultural Extension Service was founded 50 years ago this year, in 1914, as a trend in agricultural education that three years later saw vo-ag established in the nation's high schools!

As American agriculture grew, a need to personally reach farmers with new information became important. So was born the farm demonstration technique under Dr. Seaman Knapp in 1903. Later, private grants set up demonstration plots for research. Seeing this need, legislators signed into law on May 8, 1914, the Smith-Lever Act, which allotted funds for agents to work between farmers and the USDA.

Today a professional Extension staff of nearly 15,000 carries USDA and state university information to 54 million people living in rural areas. Of the nation's 3,150 counties, all but a few are reached by direct Extension work. Furthermore, Extension and lay leaders hold nearly three million meetings attended by 75 million people each year.

The Extension Service is financed partly through federal, state, and local funds. It is helping farmers keep American agriculture the greatest, most efficient in the world.

Crop dusting is an investment in protection that pays important dividends at harvest time.

So with farm lubricants. Their function — protection of costly equipment — demands the best. You get them at Kendall dealers. A complete line refined from the choicest 100% Pennsylvania Crude Oil. The real reward comes in the Economy of Kendall Quality. Wherever used on farm implements and equipment, Kendall Lubricants save important money.

USE KENDALL FARM LUBRICANTS

KENDALL REFINING COMPANY  •  Bradford, Pa. / Toronto, Ont.

Lubrication Specialists Since 1881

August-September, 1964
All these "extras" are standard equipment when you buy an International pickup

Our pickups have the fuse panel where you can find it—in the glove compartment—and we label each fuse.

It's safer inside an INTERNATIONAL pickup because the gas tank's outside. We put it under the body.

Zinc, and lots of it, gives INTERNATIONAL pickup bodies long-life protection from costly corrosion.

INTERNATIONAL pickups are built three inches lower at the tailgate to save you ½ mile of lifting a year.

Our crankshafts work longer because they're 35 lbs. heavier. Special steels strengthen every component.

We spend $5 on extra gauges to save you a $500 engine. Warning lights just can't warn you soon enough.

All this, and more, makes an INTERNATIONAL like no other truck. Get the right model for your job from an INTERNATIONAL Dealer or Branch—listed in the Yellow Pages. International Harvester Company, 180 North Michigan Avenue, Chicago 1, Illinois.

INTERNATIONAL TRUCKS IH.

"Build a truck to do a job—change it only to do it better"
IOWA's

Citrus Chapters

Citrus by the ton is trucked into dozens of Iowa chapters each fall.

By Paul Weller

Each fall fully loaded semi-trucks travel between the citrus groves of Florida and Texas and FFA chapters in Iowa in one of the most unusual fund-raising programs to be found anywhere. Last year alone, this Future Farmer-operated program brought nearly 16,000 boxes of citrus fruit north at a net profit of $31,428 to 42 cooperating chapters. And chances are, it'll grow even bigger as FFA members begin planning for 1964.

Centered in northwest Iowa, the program is operated jointly by the Aurelia and Lake City chapters, who, although 60 miles apart, plan and process mountains of orders through phone calls and letters. The two chapters act as brokers and coordinate citrus orders for 40 other FFA chapters as far as 200 miles away. So great has been the influence of the FFA's huge citrus program that many local residents refer to Aurelia as the "Citrus Capitol of Iowa," even though no citrus is grown anywhere in the state.

As with many such programs, Iowa's citrus sales had an uneventful beginning back in 1948, when the Lake City Chapter contracted with a grove in Texas to ship tree-ripened fruit for Christmas. The Texas grower, an honorary Future Farmer himself, made a good deal, and by 1950 enough orders were gathered to ship a truckload of fruit. Ten years later, in 1960, the Aurelia Chapter offered to take over the program when it got too big for some chapters.

Today, 15 seasons later, the 42 chapters now involved order tree-ripened fruit from both Texas and Florida. Last fall, 15,585 boxes of oranges and grapefruit, at a cost of $46,497, were shipped and distributed by Future Farmers. The Denison, Iowa, Chapter alone sold 1,250 boxes of fruit to community residents, making an average of 18 boxes sold per member.

Handled by the chapter's Cooperative Activities Committee, the program gets into high gear each October as circulars are sent out to all interested chapters advising them of the program. Chapters then begin planning their sales programs as additional circulars are received on size, quality, and prices of the fruit to be shipped. By November 15, the Aurelia Chapter is busy phoning Florida and Texas fruit brokers to bargain on fruit quantities and prices.

A joint meeting by the Aurelia and Lake City committees decides the place to buy the fruit, the quality desired, and the price to charge the 40 cooperating chapters. A 5-cent brokerage fee is charged the other chapters on each box by the two chapters. Last year, Aurelia and Lake City split $460 for their time and effort in handling the program. Aurelia treasurer, Bob Parker, spent three hours a day for three weeks to keep his books accurate and up-to-date.

Delivery is set for the second week of December to encourage gift sales for Christmas. The final price to be paid the southern brokers is not set by the chapters until about a week before delivery, as a constant bargaining session goes on to lower the cost of the fruit. Last year, the Aurelia Chapter reduced the fruit price $9,800 from the time the first price was quoted until the date of purchase. The final price includes the cost of the fruit, transportation by truck to each FFA chapter, and the cost of ordering. The bill came to $46,497 last year and was paid for by check.

As each truckload of fruit leaves the citrus groves, a bank draft is drawn on the Aurelia Chapter. Because some of the cooperating chapters were slow in paying last year, Aurelia Future Farmers had to borrow $27,000 from a local bank at 6 percent interest to meet their drafts until all payments were in.

Aurelia Future Farmers made $1,657 profit from their local citrus sales last year. But more important than the profit was the service rendered to the community. Members sell tree-ripened citrus fruit, a product that cannot be purchased in local grocery stores, and they sell it cheaper than most competitive prices. In order words, the community gets its money's worth, and Future Farmers net a good profit for their chapter.

At Aurelia, the chapter's Cooperative Activities Committee budgeted approximately $55.00 to encourage Future Farmers to sell the citrus. The highest salesman receives a shotgun, while lesser awards are given to runners-up. The fruit is sold in four-fifths bushel boxes at around $5.00. This same box usually costs the chapter $3.00. A chapter guarantee replaces spoiled fruit so that each customer receives all he has paid for. Each member-salesman is responsible for sorting and delivering the fruit he sells.

The fruit sales paid for Aurelia Chapter's senior trip to Canada this past year. Its returns also helped boost chapter activities that have given them a superior rating for the past four years. The program has many problems, but despite them, Advisor Charles Schmidt sums up its rewards:

"The citrus activity is a three-week project that teaches the chapter to work together, to gain bargaining power and sales experience, and to solve financial problems. We believe this is one of the best fund-raising activities available without destroying our public relations program with too much door-to-door selling."

August-September, 1964
USING flames to control weeds in crops is not new. In fact, some farmers have been using flame cultivation since the 1930's, when Price McLemore introduced the system into the cotton fields of Alabama.

What IS new are the many crops where flame cultivation is now being used successfully and the research that is shedding new light on this often misunderstood technique. It is important that farmers understand when and how weed flaming should be used, if at all, on their crops.

Flame cultivation is not always the complete answer to weed control. At times it is used with both pre- and post-emergence herbicides to be completely effective. Mississippi researchers found a savings of $5.66 per acre using flame cultivation as a supplement to chemicals last year, compared to only $8.83 per acre that same season when flaming was used alone. As a weed control supplement, it brings row crop farmers a step closer to complete mechanization.

It deals with directing controlled flames at the base of growing crops to kill weeds. The crop must be larger than the weeds so that it is more tolerant to the heat and not killed. For cotton, the ideal situation is the crop being eight inches tall and the weeds not over two inches in height. Special burners direct a wide, thin flame at an angle of from 30 to 45 degrees on a line approximately two inches away from the roots of the crop. At a tractor speed of three m.p.h., the flame covers each weed for one-tenth second, long enough to kill it.

Flame burner attachments have been designed to mount on your conventional rear-mounted cultivators. Clamps hold hoses that feed the liquid petroleum from the supply tank on top of your cultivator to the burners eight inches off the ground. Most burners are either mounted on skids or on small gauge wheels that keep them at the optimum height. Fuel goes to the burners, where it is mixed with air and ignited. The system is under pressure, and regulating this pressure will vary your flame pattern.

Recent developments have made available a hooded burner that economically controls weeds between rows as well. It is possible to burn all weeds while cultivating your crop at the same time. Although costs vary, reliable figures show costs per acre to average $1.31 for controlling weeds in the row, plus an additional $3.30 for fuel to control between-row weeds. The $1.61 per acre total is an economical figure compared to hand or chemical methods.

Flame weed control has been used most extensively in cotton, but now researchers have used it successfully in crops from corn to potatoes to grapes. In corn, the first row flaming can come when corn is about 1½ inches tall. Most burnt corn will grow back at this stage. A second flaming could come when the corn is eight inches tall. The weeds will probably be about two inches high at this point. Another recommended method is to let a pre-emergence herbicide control weeds until the corn is 12 inches high, then use flaming.

Weeds in potatoes, soybeans, and sorghum have also been controlled with flame cultivation. Newest crop to be tested for weed flaming is grapes in California. Beginning in early February, the first flaming cleans the trash from the rows and kills winter annuals. A second burn in March, and a third if needed, will completely control all weeds. Flaming grapes costs from $1.00 to $1.50 per acre, compared to up to $5.00 per acre for weeding with the "French" plow. Best of all, as with all flame weeding, costs will diminish as fewer burnings are required in future seasons.

Weeds cost you money! An Illinois field study showed that foxtail can reduce corn yields $23.00 an acre, while pigweed robbed corn yields up to $30.00 an acre and soybeans as much as $36.00 per acre. Flaming these weeds has proved to cut production costs up to 40 percent, with additional benefits in insect and disease control, and has reduced weed control in subsequent years.

Flame cultivation may increase your profit margins, but you'll need to study its limitations and suitability to your farm first. Remember, it's best used as a weed control supplement on partially grown crops.

This rear-mounted four-row flame cultivator uses flat-type burners in rows of cotton near Stoneville, Mississippi.
"I'D LIKE to milk 100 cows," Future Farmer Gary Nampel told his advisor, Carl Benrud, at Hartland, Wisconsin. To Advisor Benrud and his neighbors, this was a bit startling, for Gary was a city boy with no farm. His father was a steel mill foreman in Milwaukee, and no one in his family was interested in farming.

But Gary let none of this stand between him and his goal of becoming a farmer. In his desire to farm, he was putting a new twist to the adage, "You can't take the farm out of the boy when he goes to the city."

The Future Farmer's first opportunity to enroll in vo-ag and establish a farming program came several years ago when his parents moved to suburban Hartland seeking country living. Gary had his chance to enter vo-ag at local Arrowhead High School, and it wasn't long before he had made friends with a neighbor who owned a patch of land next door. The neighbor's permission to let Gary put a steer in his barn became Gary's supervised farming program beginning.

A short while later, Gary rented an acre of land to plant vegetables, then took a job on a nearby beef farm to help pay for seed. With these first small earnings, Gary bought an ancient $75.00 tractor that brought chuckles from townsfolk; then he began putting up hay on rented land. By this time, he had seven animals housed in Neighbor Gleason's barn.

With profits saved from his expanding farming program, Gary bought a better tractor, then a plow, cultivator, and harrows. He rented 22 acres for corn and oats and put up 2,000 bales of hay in his sophomore year from grass on the school ground, enough to feed his growing herd. In his junior year at Arrowhead, Gary worked for a local dairy farm, doing morning and evening chores and learning the dairy business. He now had 36 acres in crops and 2,000 more bales of hay.

With Advisor Benrud's help, Gary expanded still more and bought a bigger tractor at graduation in 1962. That year he worked 80 acres of crops, including soybeans, corn, barley, and oats. But things didn't always go well as Gary recalls. His bean crop failed that summer because he didn't fertilize it. It was a lesson many beginning farmers must learn, and he now is a heavy user of plant food.

Gary Nampel, here in his milk house, plans to build his herd to 100 cows.

Records and careful advance planning help Gary in his farming operation, he tells Advisor Carl Benrud. The 218-acre farm has helped him build his herd.

Gary's unusual drive and initiative didn't go unnoticed in the Hartland community. A Milwaukee investor, John Monroe, needed a tenant on his 218-acre farm nearby and decided to give the FFA member a try. At 18, Gary Nampel was completely on his own on 218 acres of sharecrop farming. To build up capital, he worked in a foundry during the day, boarding the dairy heifers that would soon become his herd.

Then last year, Gary became a full-time farmer. He moved his 20 dairy heifers to the farm, and moved upstairs in an apartment in the farmhouse. His landlord matched the number of cattle so that Gary could begin selling milk, and today—a year later—he has 51 milk cows, plus 32 heifers and calves. Farm profits have netted the dedicated young farmer two tractors, a corn planter, grain drill, mower, disc, rake, harrow, and manure spreader. In addition, he recently bought a baler, plow, and truck.

Gary is busy now tearing out old stanchions in the barn, remodeling buildings, and converting an outbuilding into a loafing barn for dry cows. He ships between 1,300 and 1,400 pounds of milk a day to Milwaukee, hoping to increase this a great deal as his herd matures. Still only 20, Gary has some trouble getting credit for his farming operation but has been able to borrow $7,000 to bring his net worth to $15,000.

A good vo-ag student at Arrowhead, Gary still regularly attends Young Farmer classes held weekly there in winter. "More dedication than I've seen in 25 years," his landlord described him recently. And Gary continues to work toward that goal of 100 milk cows, remarking, "I have large ideas for the future."
Every unmarried qualified Future Farmer faces a military obligation in a few years.  

Here are more than a dozen ways you can fulfill it.

By Paul Weller

T HE PATRON Saint of the FFA, George Washington, wrote in 1783, "It may be laid down as the basis of our system that every citizen who enjoys the protection of our government owes a portion of his personal services to the defense of it. . . ."

And so for countless generations, Americans have served their flag in the armed forces. The military draft law, in continuous effect since before World War II, virtually assures that every unmarried male between 18 and 26 will be called to serve in the armed forces to prepare himself to defend his country. You, as a Future Farmer, will need to think about the military service in a short time.

If you haven't already thought about the military, you will come face to face with it soon after your eighteenth birthday, when you register for the draft. You will learn that every physically and mentally qualified unmarried male between 18 and 26 faces a six-year military obligation. How you plan and prepare for it now can affect your entire future.

You are free to choose both the branch of service and the amount of time spent on active duty—even when you will serve—if you make plans before you are drafted. Once you receive your draft notice, it's all decided for you by Uncle Sam. Young men are drafted into the Army without a choice of training for two years' active duty. Depending on your draft board and the monthly quota, this usually comes somewhere around your twenty-first birthday. When you serve your two years of active duty, you will still have three years of Ready Reserve duty and one year in the Stand-by Reserves upon your return.

You have a perplexing choice, when enlisting, of the Army, Air Force, Navy, Marines, Coast Guard, or National Guard, further complicated by the many programs offered by each service. You can serve as anything from a jet pilot to a rifleman to a cook for as long as five years or as little as four months. When you enlist, you usually have some choice as to the training you'll receive as long as you qualify and there are openings at that time.

If you decide on military service after high school graduation, you'll have the following choices:

ARMY—Enlistments into the Army are for three years of active duty, plus three years of Reserve duty. Usually during two of the three Reserve years, you'll need to attend 48 weekly paid drills, plus a 15-day summer camp. The remaining Reserve year requires no active participation. The Army offers a Graduate Specialist Program with over 100 classroom courses that an enlistee may choose from before enlisting. If you qualify, you'll be guaranteed the training of your choice.

ARMY NATIONAL GUARD—This program is also a six-year obligation, but you'll serve only six months on active duty. When you return, you'll be assigned to a National Guard unit in your community and attend 48 paid drills a year, plus the 15-day summer camp. You'll need to remain in the active phase for 5½ years until your obligation is completed. This allows you to maintain your farming program or job and still fulfill your military duty. You will enter the six months of active duty within 120 days after you enlist unless you have a high school deferment.

ENLISTED ARMY RESERVE—This Reserve program differs from the National Guard in that it is federally administered instead of state as with the Guard, and the active duty period varies according to the training program in which you are enrolled. For instance, you may serve only four months on active duty if your specialty requires only eight weeks of training plus basic training. But if your specialty requires eight months, you'll serve this time on active duty, then return to five years four months' Reserve duty.

AIR FORCE—All Air Force enlistments are voluntary and for four years' active duty except pilots, who must serve five years. You then have two years of Stand-by Reserves when you complete active duty. The Air Force offers technical training in most fields from electronics to...
administration. Your duty assignment depends on your aptitude score and the needs of the Air Force.

AIR NATIONAL GUARD—These units are state-controlled and located in most states. You can enlist for six years, take eight weeks' active basic training, then whatever additional training your specialty requires. You must serve at least four months' active, however, and the remainder of the six years on 48 drills and a summer camp each year.

AIR FORCE RESERVE—This program is similar to the Air National Guard except that it is federally controlled and not eligible for state activation as with National Guard units. You serve eight weeks' active for basic training, plus eight additional weeks or more for specialty training. Most Air Force Reserve units are located at full-time Air Force bases or installations.

NAVY—A voluntary service, the Navy offers three-, four-, and six-year enlistments for active duty. Three-year enlistments are limited and selected by the Navy from test scores. Most enlistments are for four years of active duty. The Navy prefers high school graduates and offers qualified enlistees over 60 fields of training, such as nuclear propulsion, submarine service, naval air training, ship duty, and electronics.

NAVAL RESERVE—The Navy's Reserve program differs from other services in that upon enlisting, you must serve two years on active duty. You will enlist for six years. The first 12 to 15 months would be active Reserve at home; then you would go for two years of active duty with the fleet. Upon returning, you would serve again in the active Reserves until you had served five years total. Then you could go to the Stand-by Reserve with no meetings to attend.

NAVAL AIR RESERVE—If you are qualified for the Naval Air Reserve, you could enlist for a six-year period but spend only six months on active duty at a Naval air station. The remaining 5½ years would be back at your home station where you enlisted.

MARINE CORPS—Enlistments in the Marine Corps follow closely the Navy's three-, four-, and six-year periods. Most enlistments are for general duty, with a percentage of qualified enlistees being eligible for aviation training. Upon completion of your active duty, you return to Reserve duty for the remainder of your six-year obligation.

MARINE CORPS RESERVE—The Marines have a Reserve program in which you serve six months' active duty, then return home where you attend weekend drills and Annual Field Training with a unit of the Organized Marine Corps Reserve for 5½ years. While on six month's active duty, you receive basic training and either advanced infantry or aviation technical training. Your total active Reserve obligation is six years.

COAST GUARD—Enlistment in the Coast Guard is for four years only. After completion of basic training, consideration is given to those enlistees desiring duty at a station near their homes. Special vocational training is also available.

COAST GUARD RESERVE—The Coast Guard also has a 6-, 9-, and 12-month active duty Reserve program whereby men may enlist for a six-year enlistment. Six, 9, or 12 months will be on active duty with the remaining portion of the six-year obligation spent in the active Reserves.

All services offer officer candidate programs for qualified men to train to become officers. The National Guard offers programs whereby you can train in your home state on weekends and at summer camps. The regular services offer programs that you can apply for after enlisting.

Military service gives you an experience that will help you the rest of your life—experience with all types of people. You'll train with the rich and poor, those from all walks of life, and maybe even celebrities. You'll soon learn that you get out of the military just what you put in it.

In the military, you'll be helping protect your country. As Poet Ralph Waldo Emerson said, "For what avail the plow or sail, or land or life, if freedom fail?"
Protection From Above

Your farm is not safe without lightning protection.

NATURE'S artillery—the flashing, roaring streaks of destruction that we call lightning—cost farmers over 40 million dollars last year in destroyed farm buildings alone. Over 2,200 barns were lost, thousands of cattle killed, and hundreds of farm homes damaged or destroyed—all because their owners had failed to install adequate lightning protection.

Near Promise City, Iowa, last July, two Future Farmers were asleep when smoke and heat awoke them. Their farm home had been struck by lightning! By the time firemen arrived, the six-room home was completely destroyed.

Outside Amesbury, Massachusetts, the day before, lightning struck a tall pine near Harry Sears' barn and bounced into the barn and across the lane to the house. In moments the barn and 80 tons of hay were engulfed in flames. The house was saved, but Farmer Sears lost his hay, barn, and machinery.

And probably the classic example of lightning's relentless fury is the tragic case of Illinois Farmer John Stark. First, lighting struck his barn, burning it along with his livestock. Within 10 days, his hayshed was struck and burned. A while later, a bolt hit a fence near Stark and injured him. Still later, lightning finally ended its deadly pursuit when it killed Stark as he visited in a neighbor's barn.

The above are only isolated examples of the losses farmers suffer each year as a result of lightning. Insurance companies tell us that 80 to 90 percent of all livestock deaths are due to lightning, that your new farm buildings are just as vulnerable to lightning as the older ones, and that lightning causes two out of every five destructive farm fires. One Midwest insurance company paid $374,852 in claims for 2,664 head of cattle killed by lightning over a three-year period.

But destructive as lightning is, its losses can be minimized by installing a farm lightning protection system. Such a system, properly installed, can give you complete protection at costs that can average less than $1.00 a month for large barns, and much less for a house or smaller buildings.

Lightning protection for farms is recommended to include four parts: buildings, livestock, trees, and fences. Barns and outbuildings should have terminal points on all ridges and high points with conductors and cable to carry any bolt to the ground. Here ground rods tested to fit the requirements of the soil would discharge the bolt into the soil where it would be grounded. Usually the rods on the ridge are placed every 20 feet and are at least 10 inches high. The cable is usually heavy twisted aluminum or copper and is tied in to the gutters, water pipes, and other metal bodies. The ground rods, a minimum of one at each end of the barn, are sunk a minimum of 10 feet into the ground.

Livestock inside your buildings need protection from electrocution from man- fire lightning bolts. All stanchions, water cups, feeding and milking apparatus, and metal equipment should be tied into the building protection system by cable and grounded.

Lone trees and groves are prime lightning targets. If your cattle congregate under them or they happen to be near buildings, it's a good idea to protect them. Fasten a terminal point to the highest part of the tree along with outlying branches, and put conductors down the tree trunk. Install two grounds per tree at least 10 feet deep and outside the area of root spread. If the trees are in a row, interconnect them.

Fences are also important conductors of bolts of lightning. Steel fence posts set directly in the soil are self-grounding, but metal fences on wooden posts and steel posts in concrete need additional protection. Set ground rods or pipes every 150 feet along the fence.

Struck by lightning, this valuable barn was a mass of flames just minutes later.

Install lightning protection on barns, homes, silos, and other farm buildings.

Install protection on pasture trees, and ground wire fences to protect livestock.

Make sure the rod extends a few inches above the posts, is fastened to the posts with straps to touch all the fence wires, and is driven into the ground at least five feet.

Complete lightning protection is neither expensive nor difficult to obtain. But experts warn that first you need to get a system which meets quality requirements, then get professional assistance in installing it. It should meet Underwriters Laboratories' requirements for materials and installation. Comparing the risks you face without lightning protection, you'll find that such a system is a good investment. Peace of mind when the thunderclouds roll over your farm this summer can be your reward.

Additional information and recommendations are available without cost from the Lightning Protection Institute, 53 West Jackson Boulevard, Chicago 4, Illinois.

Photos and information courtesy of Lightning Protection Institute

The National FUTURE FARMER
Stand-by Electric Power

By Melvin Long

How important to you is stand-by electrical power? It actually depends upon how much work you do using electrical power.

Eventually you will have to be without electrical power for at least a short period of time due to storms or other causes of power failure. If you feel your operation could be seriously jeopardized by a temporary loss of power, you will want to consider providing an emergency source of electrical power.

It is possible to purchase a complete power plant in just about any size needed. These plants include generator, gasoline or diesel engine, and distribution panel. However, the cost of such a system would be prohibitive, in most cases, as a stand-by unit. With the farm tractor available as a power source, it seems only logical to consider arrangements which use the tractor engine.

There are two basic arrangements—stationary and portable. With either type you need a double throw switch, enabling you to disconnect the hi-line and connect your generator into your wiring system. If you hook the generator onto your wiring without disconnecting the power line, you will feed power back through your transformer, electrifying a section of the line at high voltage. This could be fatal for a repair man working on the line. Check with your power company to be sure you will have a safe hookup.

Here’s how to determine your capacity requirements: List all your motors by horsepower and all heating and lighting requirements by watts. A motor rated at one horsepower requires about 2,000 watts for starting but only about 1,000 watts after it is up to speed. Fractional horsepower motors have starting and running requirements in proportion to their size.

Heating and lighting equipment does not require extra starting current. Thus, by starting the largest motor first, then the smaller motors, and finally the heating and lighting equipment, you can make full use of the capacity of your emergency generator. It is also possible to stagger the use of some equipment. For instance, the milk cooler could be shut off while the milking machine was in operation, then started again as soon as the milker was shut off.

The total watts required for running (but not necessarily starting) all your essential motors, plus the requirements of the lights and heaters, will determine the size of the stand-by generator you need.

Stationary—A wide range of generator capacities is available, but the horsepower output of your tractor sets the limit for this unit. It will be necessary to provide a permanent mounting base for the generator as well as a building to protect it from the weather. The tractor is normally belted to these units.

To use the outfit during rainstorms, you’ll need a building large enough to belt up the tractor and keep the rig dry to prevent belt slippage. The stationary unit can be used only for a stand-by power source. However, it will be ready to go as quickly as you can belt up the tractor.

Portable—These generators are available as PTO-driven trailer-type units, which can be used with any tractor of 25 or more horsepower. If about 6,000 watts capacity will meet your needs, you may wish to consider this unit. For stand-by power use, this type should also have a building to protect the tractor and generator during stormy or rainy weather. This will require that the building be connected to the double throw switch located at the farm service electrical pole. The generator need not be anchored down in any way, as it will probably be trailer-mounted and driven by the PTO.

Emergency power is only one of several uses of this portable rig. It can provide electrical power anywhere on your farm to drive ordinary electrical tools such as electric handsaws, drills, and paint sprayers.

A tractor-driven generator should be considered only as a temporary or emergency source of farmstead electrical power because of limited capacity and the cost per kilowatt-hour. This electrical energy will cost you several times more than that purchased from the power company. However, the cost of emergency power must be considered as “insurance” against failure of vital operations on your farm rather than actual cents per kilowatt-hour.

Sawing wood and drilling far-off posts can be side benefits from your portable generator. Note the generator mount.
“Are you program chairman for your club next month? Are you losing sleep trying to come up with a program that will open their eyes at the next meeting? Friend, your worries are over. Contact an FFA member from the Belvidere Chapter. They have a number of programs they will present for you. These programs are suitable for either rural or urban audiences.”

The QUOTATION above is from our local newspaper and school paper. It sounded as if we were saying, “Never fear, the FFA is here,” but it got activity going for our chapter. We felt as if we had our necks out a mile, volunteering to put on a program for all comers. At first we got no response from the newspaper article. Then requests began to come.

Public programs presented by FFA members are not new. We found that we had a number of Future Farmers who could put on activities for the public. Probably you can list a dozen different activities which will make good programs.

You have a public speaking contest or, at least, you have a public speaker to represent your chapter in an area contest. If you make it known that your speakers are available, people will request them to speak at group meetings.

What about your parliamentary procedure team presenting a program? This team is in good practice at contest time. They can put on a good demonstration on the “Use of Parliamentary Rules.”

Then from your vo-ag classes comes a score of demonstrations which are educational. A few examples are:

1. Have four boys get some meters, a few electrical appliances, a fuse box, and other electrical equipment, and give a demonstration on “The SAFE USE of Electricity.”

2. You can have four or five boys gather different types of fire extinguishers and demonstrate how to prevent and control fires.

3. Give a demonstration on the mouth-to-mouth method of artificial respiration.

4. Have several boys give talks on the aspects of “Good Citizenship and American Heritage.”

At this date we have conducted seven demonstrations on “Parliamentary Procedure,” three programs on “The Safe Use of Electricity,” two programs on “American Heritage,” and our public speaking contestants have spoken before several clubs. We have also put on programs in which members simply described our FFA activities.

Why put on public programs? First of all, members will benefit from the experience of speaking before the public. Secondly, these activities, if well presented, are good public relations for your chapter. There is always a need to let the public see the various activities of the FFA.

From our experience we found that we had our best programs when we followed these pointers:

1. Rehearse your programs until they can be presented well and within the allotted time. Strive for perfection, and put across your message without going a minute overtime.

2. Neatness is important. Arrange your materials in a neat arrangement. Any placard or written poster should be neat and presentable.

3. Expedite. This means to keep the program moving. Don’t let your program get dull and lifeless.

4. Don’t be a show-off. Don’t offend your audience because you may know a little more about your topic than they do. Because you have prepared yourself on some point is the reason you are putting on the program.

5. Be on time. Make certain all members on your program know what time your program starts and are there on time.

You will be proud of your chapter when you hear the applause and your group being commended for a well-presented program.

By
Jim Reid
Belvidere FFA Chapter

Author Jim Reid looks over shoulders of fellow chapter members as they begin planning for another local program.
AFTER eight years of use, our chapter’s 16-by 40-foot lath-house finally had to be torn down in the interest of safety. Following some planning, we felt that we needed an all-metal lath-house. Mr. Takumi Kono, program assistant for agricultural education, Hawaii District Schools, agreed such construction was feasible.

The biggest factor to consider was cost. The cost of pipe at the prevailing prices was prohibitive, so a contact was maintained with the Government’s Surplus Property Division. Finally, about a year ago, we were able to purchase some 13/4-inch- and 3/4-inch-diameter steel tubes.

Using the 13/4-inch-diameter steel tubes for the studs and the 3/4-inch ones for the rest of the construction, a gable-type structure was planned. James Carras, a professional welder with the Laupahoehoe Sugar Company, was consulted. An actual drawing was made on the concrete floor of the shop, showing the 8-foot studs, the 16-foot span, the pitch, and the various bracings.

The steel tubes were cut to proper lengths and welded in the farm shop by the vo-ag students. Their completed outfit represented just one of the frames; five similar frames were then made. These frames were set up at the chosen site and held together by 40-foot pur- lins made of 3/4-inch steel tubes and bolted down on the frames using 3/16-inch stove bolts.

The entire structure was set on 8-inch by 8-inch concrete blocks and imbedded in the ground, each with a 2-inch-high pipe stud in the center so that the 13/4-inch tube frame would fit over them. This prevented any movement of the structure.

To provide shade, which is necessary for this lath-house, a 40 percent shade Saran cloth was used to cover the entire structure. A network of galvanized wire supports this Saran cloth from being blown around. Around the bottom of the structure and approximately 10 inches above the ground will be bolted 1-inch by 3-inch lumber onto which will be stapled the Saran cloth to hold it more securely.

The total cost of this structure, including the pipes, Saran cloth, lumber, bolts, wire, and paint, was approximately $127. It is hoped that this all-metal lath-house will serve the needs of Laupahoehoe School for a long time.

Laupahoehoe’s “All-Metal” Lath-House

Planning and group effort helped vo-ag students at the Laupahoehoe School complete a new, all-metal lath-house.

By Allen Fujinaga
Chapter Advisor

Advisor Allen Fujinaga, left, gives advice to vo-ag students putting wire over metal lath-house framework to hold the exterior covering. Note concrete corners.

Framework of the lath-house completed, Advisor Fujinaga plans exterior with Takumi Kono, Hawaiian vo-ag official.

Students string 16-gauge wire every two feet across the framework as a foundation for the Saran exterior cover.
S
Sure I'd like to go to college, but how can I swing it? Dad has a good farming operation, but with the need for expansion he's still in debt. How can I finance college costs?

Myron Just of Berlin, North Dakota, faced this problem just like thousands of other Future Farmers. At first he was unable to find a solution, but a program became available late in 1962 that provided the answer. Myron is using a Production Credit Association Educational Loan to pay his college costs.

Myron Just is one of 206 North Dakota young farmers using the PCA Educational Loan Program. Presently a junior at North Dakota State University, he left the farm to attend college for two years, planning to return to farm. However, since starting to college, he discovered the advantages of completing his education and decided to continue.

Completing high school in 1959, Myron had a strong record of achievement. He was a member and officer of the FFA chapter at LaMoure High School and had a farming program of crops and livestock. Myron used the current income and money saved from his FFA program to start his education. While attending college, he continued to run a quarter section of his father's operation, paying the custom harvesting costs and getting the income from the crops to pay on his college costs.

When the Educational Loan Program became available, he switched to this program because both he and his father wanted to have a definite understanding as to how the education costs were going to be shared. Myron wanted to participate in the repayment and share the responsibility for the debt. The PCA loan allows him to accomplish this.

Myron borrowed $940 for this year's college expenses. He will repay much of this from the sale of his crops this fall and will borrow what additional money is needed to complete the next year from PCA in the fall when school starts. He will have up to three years to repay the balance after graduation. He pays 6 percent simple interest on the loan. The educational loan is unsecured, and both he and his father signed the note.

Generally, 25 percent of the total credit that is advanced each year is repaid during the same year. It is paid usually from summer work, along with the interest. The remainder (75 percent of the total sum which was advanced) may be repaid along with interest within a three-year period after the student's training has been completed. Most of the loans are written on an unsecured basis, but this depends on the evidence of financial responsibility presented.

The student does not have to be majoring in an agricultural field. Myron's brother also has a PCA Educational Loan and is training to become a minister. The student or sponsor, however, must be an eligible PCA borrower and own or operate a farming operation.

Myron stated that he "would gladly recommend the PCA Loan to other rural students because it fits the typical student's needs." Many parents are reluctant to go into debt for education without understanding how the program can be financed. The PCA Educational Loan provides a way of solving these problems. Although the loan program does not dictate whom or how the loan is to be repaid, it helps the signers (student and sponsor) to arrive at an agreement on these matters.

Myron's father Julius, is also a strong backer of the loan program. "We would have used the educational loan program earlier had it been available. Where there is a will, there is a way, but without financing from PCA, we wouldn't have been able to put all of the children into college."

B. W. Johnson, general manager of the PCA at Fargo, reports that 141 of these loans are in operation with a total commitment of $126,732. The association he manages serves 813 North Dakota counties with six other branch offices besides LaMoure.

Many educators strongly endorse the PCA program. Shubel D. Owen, a professor with the Department of Agricultural Education at NSDU, reports that several of his students are participating in this program even though it has been available for less than two years. "The PCA Educational Loan is an excellent program, fulfilling a genuine need and providing a real service to farmers."

Why not find out for yourself? Information is available from any PCA loan office in your area.

By
Howard Richards

Marvin Werner, PCA branch manager, chats with Myron's dad, Julius, during planting.

Myron, left, and Professor Owen discuss loan on campus. He studies, below.
Grooming
Can Make the Difference

The value of your heifer can increase $100 for each place she advances above fourth in a show. These grooming tips can net you money and awards.

By James Scott

Most dairy heifers suited for the show ring can be increased in value in addition to winning more prize money for the exhibitor. And this increase in value can be attained with little money or effort if you use the proper grooming procedure.

The value of a heifer increases about $100 for each place she advances above fourth in a show. Most good heifers will place in the top group, but it takes extra effort to move them to the top of the class. The main difference is conditioning and grooming.

A well-fitted heifer that moves properly will attract the eye of any judge. This attractiveness can be obtained only by grooming and training and is not accomplished overnight. Grooming actually takes less time if it is extended over a period of time.

The heifer should be confined seven to eight weeks before the show in a barn or shed that has adequate light and ventilation. The animal should not be in the direct light of the sun at any time during the day. Sun-bleached hair is one of the most unattractive conditions in the show ring.

Do not handle her for the first three days she is confined. This period allows her to learn to respect the halter, eliminating the problem of the trainer's being dragged over half the farm. Except for feeding and watering, she should not be disturbed during this period.

Then, teaching her to lead is a simple operation. Short training periods are best. A good procedure is to lead her to feed and water twice a day.

However, training her to lead is not enough. Now she must learn to walk slowly with her head up. A good carriage will improve her balance. She should also be trained to stand correctly with her feet under her with the right rear foot slightly back. Place her feet by pressing on her shoulder just inside the shoulder blade. When well trained, she will move at a touch. The trainer should recognize the heifer's faults and make her stand so that she looks her best. This can be accomplished only if she responds readily to the halter.

During the training period, feed her a ration of hay, grain, and beet pulp. Beet pulp will help increase her body capacity. She will learn to eat pulp if it is increased in the grain ration for a week. Feed her all the pulp she can handle.

(AContinued on Page 45)

August-September, 1964
David Ommanney, our man in Africa, shows Masai warrior how to work lever of his new Winchester 22 Magnum.

“Big game calls for big guns,” says professional hunter Ommanney. “Yet a hard-hitting 22 belongs in any safari battery.” That’s why—when we proved our bigger-bore rifles on safari—we also took along the new Winchester 22 Magnums. Read how well they performed.

The tribal sport of the Masai is hunting lions with a spear.

We passed through Masai country when we took the new Winchesters to Africa. And we’d love to be able to tell you that we bagged a lion with one of our new 22s.

Such a feat, in David Ommanney’s opinion, would not be beyond the power of this hard-hitting little rifle—using our Winchester-Western 22 Magnum ammo.

But he’d be the last man to let us (or anyone) try it.

For one thing, the East African game laws—which Ommanney, as a licensed professional hunter, is duty-bound to enforce—forbid the use of 22 rifles except for shooting birds and vermin.

“It’s tough,” said our safari leader, after watching this small-bore rifle perform. “Here’s a new 22 that’s just the job for little antelope like oribi and dik-dik. And I’m sure that—in the right hands, and at proper range—it would drop game as big as topi.

“Just the same, our law that bans hunting with a 22 makes a lot of sense, when you think about it.”

After hearing Ommanney’s reasons, we couldn’t but agree with him. Not all hunters shoot straight. Or think straight. So this law prevents the foolhardy from going—undergunned—against dangerous animals. It also stops wounding of game by unskilled marksmen.

The law dates back, of course, to the days when no 22 had anything like the stopping power of our new 22 Magnum.

In spite of being restricted in their use, we had no regrets about taking our new 22s to Africa. They were just as thoroughly proved on safari as our new Model 70s and shotguns.

We wanted to get them well jolted—and their actions full of dust—in the rack of a Land-Rover, bucking through the bush. They took their bumps, and shot as straight as ever.

We wanted Ommanney to use them, and compare them for performance with the regular Winchester 22 he always carries on safari.

“I never saw anything like it,” he said. “These little Magnums pack the wallop of a centerfire rifle.”

Maybe—although you need a hard-hitting 22—you’ve little use for the extra power of a Magnum? In that case, look no further than the regular Winchester models shown below. “Real rifles,” every one of them.

Also chambered for Magnum ammo is this new slide-action Winchester 22 (Model 275, price $59.95). Same price for the lever-action Model 255 Magnum.


Semi-automatic rifle Model 290, $52.95.

Lever-action rifle Model 250, $56.95.

Slide-action rifle Model 270, $55.95.

(Winchester Western Division. 1931)
Supervised WORM Farming

By Dale Cotton
Oklahoma FFA Exec. Secretary

RAISING worms, as described by Bill Bowen, a Future Farmer from Sapulpa, Oklahoma, is neither laughable nor simple. His main enterprise in the FFA is raising worms, and he assures visitors that worm raising has many of the problems associated with other "livestock," even to keeping them content. (They grow faster and "fatten" faster if kept under desirable conditions.)

The bed for worms is prepared from peat moss which is treated with calcium carbonate. The prepared peat moss is put 1½ to two inches deep in plastic-lined wooden containers about three feet by six feet in size, and about 12 inches deep.

These should make the fish jump for joy! Worms are typical of ones Bill markets.

Normally, Bill says, about 1,000 breeder worms (this are African Giants) are put into the prepared bed, where they are fed for three weeks. At that time the worms are removed, with the eggs left in the bed. A week after the eggs are laid, they begin to hatch with about seven worms coming from each egg. The new worms are the size of a needle and about one-quarter inch long.

The new worms are fed on prepared manure for two to three weeks until the ring begins to form around their necks. At this time, requiring judgment on the part of the owner, the change is made to a specifically prepared formula of finely ground mixed grain. Usually in four to five weeks the worms are big enough to sell to fishermen or bait stores.

During the growing period, Bill must check to make sure the peat moss is not becoming too compacted. When it becomes firmer, he turns it to loosen it.

Feeding is done with a mesh dipper. The feed is sprinkled lightly on top of the bed. The worms know when they are being fed and start wiggling around to eat their feed.

The bed must be kept about the right dampness, so Bill checks frequently and sprays the beds when needed.

Temperature must also be controlled and should be kept between 50 and 80 degrees; otherwise, the worms don't do well and tend to shrivel.

A light is kept burning at night above the beds so that if the worms should become excited, the light will tend to reassure them. Storms, thunder, electrical disturbances, or sudden vibration tends to cause the worms to become uneasy, and they will attempt to crawl out of the beds. A shield attached near the top of the beds keeps most of them from crawling out, but Bill says it's best to keep them from becoming excited enough to start crawling.

Some of the new worms can be used for breeder worms to start another bed, or the original set of worms can be used for several months.

Even the peat moss in which the worms are started is of some value. As the worms mature, the peat moss becomes richer and richer and is sold as worm castings, being ideal for potting plants, flower beds, and other places where rich soil is needed.

Bill figures that he has sold more than 10,000 worms this year and has at least 5,000 worms big enough to sell now. In addition, he has six beds of worm that are in the growing stage and will market them when ready.

Vocag Instructor Quinton Walkup expresses amazement at all he has learned about worm raising from his student. At first, he was skeptical about reporting that he had a student raising worms but now takes pride in the achievements Bill has made in this unusual business.

T HE RING of axes and call of "Timber!" are part of a program in western Montana that is helping Future Farmers become skilled foresters. In this area bordering the Sapphire Mountains, the major source of employment comes from forestry and lumbering. It wasn't unusual then that last year alone nearly 40 percent of one local chapter's graduates entered work in forestry.

As Phil Bratton, advisor at Stevensville Chapter, put it, "When we find that nearly 25 percent of our graduates in the past five years are working in some area of forestry, it becomes important for us to provide training. . . ."

The beginning of their forestry program at Stevensville came about in 1948, when the local Anaconda Company deeded the chapter 120 acres of land on the west slope of the Sapphire Mountains. For 11 years, chapter members did hand thinning and minor work but had no extensive program until Advisor Bratton organized the woodlands in late 1959.

His first move was to meet with forestry service representatives to work out a plan to utilize all resources of the tree farm. They recommended a boundary survey to determine the exact area, plus the hiring of a "gyppo." The gyppo, a small logger who has his own outfit, was hired to log off 60 of the 120 acres. Advisor Bratton and his FFA members set down the rules for the logger. He would cut only mature trees down to 12 inches in diameter, he would cut out all diseased or dead trees regardless of size, and he would build an access road two miles into the wooded area.

Stevensville Chapter received $12,000 per thousand board feet for the 145,000 board feet the gyppo harvested, plus money for 186,000 additional board feet that another logger harvested later. It was a start to profits, and chapter members had gained surveying training from helping the logger lay out the woodland roads.

The following year, the summer of 1961, seven chapter members spent two weeks working on slash disposal on the tree farm. With Advisor Bratton's help, Future Farmers gathered cut limbs and debris left over from logging, scattering them so that no debris was over 18 inches deep. A good forest management practice, slash disposal brings about rapid decay of debris and returns organic matter to the forest floor. At the same time, Future Farmers opened their tree farm to the general public so that residents could gather broken trees free of charge for their winter wood supply.

Then, in the fall of 1962, chapter members gathered to clear three acres
to plant new trees. Using power saws and hand axes, Future Farmers cleared the area, at the same time cutting over 600 feet of 12-inch logs for the school parking lot. Last spring, with State Forester Gareth Moon helping, members planted 2,000 Ponderosa pine seedlings up and down the hills and valleys of the cleared area. Their tree farm was beginning to pay off, it was evident to see. The seedlings were supplied from the state nursery, and members even received a $76.50 ASC payment for following recommended practices in reforestation.

Nearly 5,000 trees will be planted next spring at seven-foot intervals on an additional five acres. It will be only a few years until thinning will produce hundreds of Christmas trees from these same areas.

Today all 43 members of the Stevensville Chapter pitch in to make their tree farm a huge success. Averaging two full days per member per year, Future Farmers help survey roads, pile brush, lay out roads, and install forest road drains to control erosion. Classroom and vo-ag shop work on forestry and lumbering supplements their labor in the woods. Under Future Farmers’ supervision, ranchers can cut posts and poles on the tree farm, being careful to cut only in areas of heavy lodge pole pine growth. Ranchers pay 10 cents a pole for the first 50, 9 cents for the next 100, and 8 cents for all others. They are told to leave stumps within six inches of the ground, scatter all limbs and tops, and leave a tree every 12 feet.

There are other ways that FFA members benefit. Members cut posts and deliver them to nearby ranchers at 30 cents; poles at 50 cents and 60 cents. They also cut firewood for community residents for $12.00 a cord, delivered. And a local rancher pays $10.00 a year to the chapter for pasturing his eight head of cattle on chapter-owned land. All told, Stevensville Future Farmers have received nearly $4,000 in income from the farm since 1959. To date, over $2,500 of this money has been used for a loan fund to help members set up their farming programs. Much of the remainder finances chapter activities.

Just two years ago, members made a tour of three neighboring states to study the commercial uses of timber and operation of other tree farms. They took careful note, asking a multitude of questions. Their own tree farm was designated as official Western Pine Tree Farm after they carefully followed forestry management practices. They now look to it as a laboratory for practical forestry experience.

With Advisor Bratton’s help, FFA members at Stevensville are continuing to plan new and modern management practices. Their tree farm, once virtually neglected, is beginning to provide a regular harvest of posts, poles, firewood, Christmas trees, lumber, and experience for future foresters.
Community Barbecue

Tipton's FFA-sponsored community barbecue brings together over 700 city and rural friends of the FFA.

Each year toward fall, the community around Tipton, Missouri, prepares a barbecue social without equal in FFA circles in the central part of the "Show-Me" state. And it's been that way now for eight years as Advisor Roscoe Gibson and his Tipton Future Farmers serve Missourians the "darndest feed you've ever seen."

From hill and hollow the people come, last year over 750 of them, to sample the FFA's hospitality. One family drove 100 miles to Tipton, ate their fill, then drove back again—satisfied that the trip was well worth it. Another farmer stopped in the middle of his busy harvest work, drove to town, and spent the rest of the day slicing barbecue meat for the evening event. He never gave the added chore a second thought.

Community service has always been a part of Tipton's program of work, but the barbecue "open house" didn't come into being until Advisor Gibson accepted an invitation to attend a small outing in the Ozarks in 1955. The barbecue suited Gibson to a "T," and when he talked with the cook, he learned the barbecue artist was buying a farm near Tipton soon. "I'll do the same for you for 10 cents a pound," the cook told Gibson.

It started a community affair that has grown every year. At Tipton, a mothers' committee is formed each year, with the chapter president's mother becoming general chairman. Other mothers gladly accept positions as co-chairmen in charge of such areas as serving, cooking, and seating. Fathers of Future Farmers pitch in to slice the mountains of meat and do the heavy work. But as Advisor Gibson assures you, "The mothers are boss! They tell us what to do."

As far in advance as six weeks before the barbecue, committees are formed and work planned. This past year there were 11 different committees, each with a chairman and willing members. All food is prepared by the mother volunteers in the high school cafeteria, except for the barbecuing. It's done nearby in Versailles by a barbecue expert who brings it by truck to Tipton for the fathers to reheat and slice it.

The night of the barbecue all of Tipton seems to be involved. Long rows of tables are set up in the high school, hundreds of paper plates and utensils are accumulated, and blue-jacketed Future Farmers scurry from one job to another. Farmers and city folks alike begin arriving up to an hour early to swap stories of the crop weather and Johnny's FFA activities. Keeping a record of the previous year's participants, Tipton Chapter members always contact them again personally to invite them to return. Only a small advertisement two weeks before the event is necessary to get crowds.

"Eatingest' town I ever saw," Advisor Gibson told us. "Better than half of the guests are farm people who normally don't come to other feeds. But they come here to visit and get acquainted."

Paying $1.50 for adults and $0.75 for children, the 750 persons ate their way through 313 pounds of ham, 128 pounds of beef, 150 pounds of slaw cabbage, 130 home-baked pies, 150 pounds of potatoes, 76 pounds of Navy beans, and 30 loaves of bread last year. It meant $548 net profit for Tipton last year. But most of all it meant public relations for the FFA. "Everyone is invited, no matter where they're from," Gibson told us.

And for Tipton's Future Farmers, their community social event will net them an expense-paid trip by bus to the Black Hills of South Dakota this summer—proof that serving the community is a two-way proposition.

The high school cafeteria is filled with community residents the night of the Tipton barbecue. Last year, some families came from as far away as 100 miles.
Notice the thicker stand and healthier growth with the Panogen-treated seed. (Similar results can be expected by Panogen treating other small grains, flax, cotton, peanuts, safflower, peas and beans.)

Section 1: Panogen Treatment

In March of 1963, we offered the Panogen seed treatment plastic bag test kits to County Agents, Vo Ag Teachers and 4-H Leaders to use in meetings and classes as visual proof of the benefits of seed treating. Since then, nearly one-million farmers and future farmers have seen this proof.

The plastic bag test visually proves the benefits of treating seed with Vapor Action Panogen—the world's most widely-used, most thoroughly-proven seed treatment. Through the clear plastic bags, you can see the black and gray disease molds form and spread to kill and weaken seeds. You can also see the clean, healthy look of the Panogen-treated seeds...their absence of mold...and their superior root and foliage development.

When you have seed treated, or recommend seed treatment chemicals for small grains, flax, cotton, peanuts, safflower, peas, and beans—specify Panogen—the Vapor Action Seed Treatment, used for 25 years by farmers all over the world.

Panogen® Vapor Action Seed Treatment

Morton Chemical Company • 110 N. Wacker Drive • Chicago 6, Ill.

August-September, 1964
Hunting Doves With Decoys

By Russell Tinsley

WHEREVER you find dove hunting, you’ll have spots where the streamlined gray birds come to water. Waiting around a farm pond is one of the most rewarding of all ways for you to outwit the wily dove.

Some waterholes are better than others for dove hunting. There are certain essentials any experienced waterhole dove hunter should look for when picking his site. A nearby food supply is the most important consideration. Pick a pond near a grain field where doves feed. Other considerations include sloping banks, preferably on shallows, where doves can readily reach water: dead timber or telephone lines nearby for rest stops; and an open pond not crowded by timber that can be easily spotted from the air so that doves can make their sweeping approach in open country.

Suppose you have a likely pond pinpointed and for several days you enjoy blue-ribbon shooting. Then abruptly, the doves change their habits. They ignore the pond or refuse to come in. Continual bombardment has made them leery.

This hunter, stationed near his decoy-decorated tree, bags a dove who had come in to join the "group." Doves often mistake decoys for nesting birds.

It is wise to hunt a pond periodically, about every third day. Give it ample rest. Even at this, some doves become spooky and are reluctant to come in to water. It pays to encourage them and to fool them into believing other doves have looked things over and come in.

This is accomplished with decoys, life-like silhouettes made from cardboard or plastic and available at most sporting goods stores. Decoys have been widely used in pass shooting, but few hunters have employed them for waterhole hunting.

About a half dozen imitations will suffice. Place the decoys along the shore near the water to simulate doves watering. Early one afternoon the decoys worked like magic for me, but as the sun dipped toward the treetops, the doves showed no interest in the cleverly placed trap.

It required a couple of days to figure that one out. Finally, it dawned that when the decoys got in the shadows, they were difficult to see, even by the sharp-eyed doves above. To offset this, I poked a dead limb in the moist bank and put the decoys out for all eyes to see. This was better. But even more successful was to place the decoys in timber adjacent to the pond to simulate doves that had dropped to rest in the dead trees.

One hunter hid near the decoy-decorated trees, blasting birds that tried to join the crowd, while another concealed himself near the pond to get those which were lured into false security and tried to come directly to water. Even when no nearby timber is available, we've found that decoys placed along the shore or on a branch pushed into the dirt will attract more doves to the pond where you wait.

The advantage of a waterhole hunt is that you can wait for birds to approach within close range before opening a shotshell barrage. No elaborate concealment is necessary. You can sit statue still with only the minimum of concealment, and doves will almost ignore you. Their eyes are geared to movement, and they can be fooled by something which does not move. I've sat in the open in camouflage-colored clothes and had them almost land on me.

But when a dove comes to water, there is no predictable pattern to its approach. Doves dive in from all directions, at many different speeds, offering a variety of shots. One might zoom straight in toward you under a full head of steam, while the next one might quarter in, banking down on a reduced throttle and circling to offer a broadside target. No two shots are alike.

That's what makes waterhole hunting interesting.
Announcing the Honda Trail 90
A brand new trail machine with a 30% boost in power.

The Honda Trail 90 has 30% more power than the famous Honda Trail 55. It carries heavier loads over rougher terrain than any other trail bike in the business. Out on the open road, it does an honest 56 mph. And goes better than 160 miles on a gallon of gas. What else is new? The only standard-equipment spark arrestor approved by the USDA Forest Service; a rugged tube-framed skid plate; a 4-speed foot shift with an automatic clutch; and a steel front fender. As for price, $330* makes it the best trail buy on the market today. For the address of your nearest dealer or other information, write: American Honda Motor Co., Inc., Dept. CR, 100 W. Alondra, Gardena, Calif.

*All prices plus destination and set-up charges. © 1964 American Honda Motor Co., Inc.
Across the U. S. A., Future Farmers Are

A happy group is the Houston FFA land judging team, newly named champions. Here are Advisor Marion, Roger Foster, Ralph Stroupe, Roy Grimes, Ron Smith.

MISSISSIPPI—Advisor Marion and his Houston Chapter land judging team had never won a national contest before. In fact, no Mississippi FFA team had ever brought home first-place honors in the 13 years that the International Land Judging Contest had been held.

But when the winner was announced in Oklahoma City this spring, it was Advisor Marion’s Houston team, winning over 56 other chapter teams from across the country. It was quite an honor for Houston and Mississippi, and congratulations were in order from over the state.

“The contest was extremely hard to judge,” Advisor Marion said, “With the highest score, we scored only 566 out of 720 points.” But it was enough to net them a $200 award and team member, Roger Foster, another $10.00 for placing sixth in individual scoring. Other Mississippi teams, Ecru and Morton, placed sixteenth and twenty-second out of the 57 competing teams to bring their state a triple threat for next year’s competition.

"Old Timer" Vernon Shepard illustrated his talk on Japan to this year's group.

IOWA—Since November, 1935, ex-Future Farmers from the Muscatine Chapter have come back to the eastern Iowa community to relate experiences of their school days. This spring marked the twenty-fifth time that the former blue jackets gathered for their "Old Timers" banquet and meeting, and when the total attendance was in, 94 ex-FFA'ers were on hand.

Each year, renewed interest brings more and more former chapter members back to their home town to get together and learn what each has done in the years out of high school. An unofficial count at this spring’s banquet showed about 90 percent of those in attendance to be farming. In fact, many had sons who were now in the FFA.

"Old Timer" Vernon Shepard, now with the Agriculture Trade Relations Committee, entertained members with an illustrated talk on Japan. And before the meeting had adjourned, the membership gave a $25.00 Savings Bond to Future Farmer Gerald Rinnert for having the most complete project records in the sophomore class. It was an evening to remember—even Lindley Hoopes, the chapter’s first advisor beginning in 1922, was there.
"Learning to Do; Doing to Learn; Earning to Live; and Living to Serve."

A Future Farmer and FHA girl work together to trim brush and weeds.

WEST VIRGINIA—As the Mountaineer State closed its Centennial Year, a search was made for the most active and public-spirited FFA chapter. The search ended at Petersburg Chapter when officials found out about the members’ cemetery restoration in Grant County.

On a hill overlooking Petersburg, the historic cemetery had fallen into ruin before Future Farmers included it in their program of work. Working through last summer, members set tombstones erect, cleared mountains of brush and weeds, and built a fence around the grave area. To make the work of lasting value, FFA members erected a weatherproof sign to give visitors all available information on those who are buried there.

Clues date the old cemetery back before 1818, the most frequent use coming between 1830 and 1860. It even holds a Civil War soldier shipped home from some far-off battlefield. As he gave Petersburg members the $150 cash award and bronze plaques to mark the cemetery, Agricultural Commissioner Johnson told members, “You have taken an important step in preserving West Virginia’s rich heritage. It will serve as a reminder...”

VERMONT—In an act of mutual benefit, officials of the City of Vergennes and Future Farmers from the Vergennes Chapter signed a contract for the improvement of timber in the local watershed. FFA members would manage and cut the city-owned timber and keep the profits from posts and firewood to buy new woodlot tools. Under way now for nearly two years, the plan helps both FFA members and the city.

Forestry practices, such as thinning to reduce the amount of trees in an area, pruning large trees up to a height of 17 feet off the ground, and weeding out trees of the wrong variety in an area, help improve the city watershed. In addition, under the contract, the FFA can cut out 10,000 board feet of timber per year to be used free in vo-ag shop work.

Another forestry practice, girdling, kills unwanted trees and leaves them as nests for birds. This, plus building access roads, has kept members busy in their watershed areas. Busy Vergennes Future Farmers have helped turn the municipal watershed into a thriving and attractive woodlot, while learning forestry practices and receiving financial benefits at the same time.

The newly completed cemetery now has sign giving credit to FFA and FHA.

Pole framing completed, Virginia Future Farmers begin erecting the siding.

ILLINOIS—When the father of two members of the Virginia FFA Chapter needed a new barn to house his horses and hay, Future Farmers pitched in to build him one—from the ground up. After a site was selected on the edge of town, FFA’ers designed a 30-by-20-by-13-foot pole barn in class.

Taking shop time, members put up the framework of discarded telephone poles, then gathered used lumber for the framing. The holes for the poles were dug by hand, and the native lumber was gathered and bought from local sources. When Future Farmers stood back to see their finished building, they figured a total cost of materials of $170, about half the cost of new lumber.

The project netted Virginia FFA members experience in squaring a building, plumbing poles, nailing girts, and working with tin. In addition, there was a grateful father.

With the chapter barn nearly finished, time for group photo of FFA members.

August-September, 1964
“Here’s our endorsement,” state president, Roger Hardy, tells fellow officers and Executive Secretary Kortesmaki.

MINNESOTA—Delegates at the state FFA convention at St. Paul this spring decided to spread word of the perils of smoking to all Minnesota Future Farmers. As Dr. Donn Mosser of the University’s hospital staff told how smoking impairs health, FFA delegates began a campaign to tell about the evils of smoking.

Cooperating with the Minnesota division of the American Cancer Society, delegates adopted a resolution charging each of Minnesota’s nearly 300 chapters with the responsibility to “take prompt and vigorous action to disseminate information regarding smoking and health among its membership . . .”

Delegates voted to have each chapter conduct an anti-smoking campaign among members and give out information furnished by the American Cancer Society. In addition, the convention decided to conduct anti-smoking educational training sessions at the district leadership meetings this fall.

WYOMING—When members of the Pinedale Chapter found they needed an FFA barn, plus funds to help send members through college, they decided to start a feeder calf program to raise money.

Pinedale citizens, including farmers, doctors, and the local Chamber of Commerce, pledged feeder calves to the members, then built a metal building 36 feet by 40 feet, plus a corral loading chute, and feed bunks. One local feed mill donated a water cooler, while another helped the chapter buy grain for the calves.

Future Farmers pitched in to cut the 17 acres of hay on the school ground, before shifting their attention to grooming and fitting their new calves. Members picked their calves, fed them, groomed and trained them, and even put them through the sales ring at the Ogden, Utah, Golden Spike Livestock Show. After next year’s program, Pinedale members will own their barn and operate their program entirely themselves, a tribute to their community support. Advisor Tom Davidson, veteran vo-ag instructor at Pinedale, pitched in to help get the program rolling.

Pinedale Future Farmers and their feeder calves pause long enough for a group photograph prior to this year’s Golden Spike Livestock Show in Ogden, Utah.

Ankle deep in crimson clover, Ran Sistrunk shows soil conservation success.

TEXAS—Farmers around Fort Worth annually participate in the Press Region IV Conservation Award, given to the farmer who has done the most to improve fertility and productivity on his farm. It was no surprise to area farmers this year when Future Farmer Ran Sistrunk of the Mount Pleasant Chapter was named winner.

Buying a 56-acre farm with his father, Ran started in to make it as productive as possible. He divided it into fields of 6, 10, 14, and 20 acres, built a four-acre lake, and planted 30 acres of crimson clover and Bermuda grass.

It wasn’t long before the crops were blooming, and last winter Ran fed out 14 Santa Gertrudis on hay that he cut from his acres. His management was so good, in fact, that Ran now owns the farm; and his advisors, A. D. Taylor and Jerry Smith, are helping him expand even more.
Sign of Confidence

The Case warranty plan—new this year—is unique in the farm equipment industry. There's no hour limit during the full 12 months of the warranty.

The lasting quality of Case products is what makes such a liberal warranty possible. During the first 11 months of fiscal 1963, Case warranty claims were less than half that of the industry average... conclusive proof that Case tractors and equipment stand up to the jobs for which they are designed.

Your family, too, can look to Case with confidence. For that rare combination of modest initial cost, high efficiency performance, minimum operating and upkeep expense that means a profitable year.

FOR A BETTER TOMORROW LOOK TO CASE TODAY
WATER
from a
FORKED
STICK

By Henry Ferguson

CLUTCHING a Y-shaped peach branch firmly in his hands, an overalls-clad man walked slowly across a pasture, crossed a shallow gully, and kept on toward a small growth of trees. His head was bent forward, eyes focused as in a trance. Suddenly the branch began to quiver, then dipped downward so violently the bark peeled off in his hands.

"Dig here," the man instructed the pasture owner, "and you'll find water." Pocketing his $25.00 fee, he strode to his car and drove away.

This man was practicing one of the oldest arts known to mankind. Water witching, dowsing, divining, witch wiggling—its name varies—is a mysterious bit of legendar y practiced by some 25,000 water finders in the United States.

Water witching is rooted deep in the witchcraft which rural America has foraged for its own. The diver holds the two branches of a forked twig, one in each hand, with the joined portion pointed skyward. Usually his palms are up and the twig is at a 45-degree angle. When the searcher is over water not more than 30 feet underground, the branch will bend down violently to a 90-degree angle. "It feels," says one expert, "like the pull on a fishing rod when you have hooked a big one."

Since the dowser often refers to his ability to find water as a "gift," his choice of instrument is secondary. Most popular material for the forked stick is peach wood, although willow is used extensively. Also used are cherry, apple, elm, persimmon, and in a pinch, even poison oak. Where wood is scarce, baling wire, barbed wire from the nearest fence, metal rods, crowbars, coat hangers, or pliers may be employed. Some prefer a ring of keys suspended from a Bible or a bottle of water on a string.

When the Case Institute of Technology was building its $300,000 astronomical observatory near Cleveland, it called in a professional "witcher" to determine where their well should be drilled. At the spot where his divining rod pointed, they put down a well which flows 300 gallons of water a minute.

The Mount Franklin Homes, Inc., planned to build a housing development just outside El Paso, Texas. Their plans were stymied when they were advised by El Paso's Public Service Board that there was no underground water available in the area. As a last desperate measure, Mount Franklin called in Ray Austin, police chief of Timberlake, South Dakota, to see what he could find. Mr. Austin, a well-known "witcher," came through with water in three out of the four places his rod selected.

Roy E. Wershing, a professional well driller who sinks about 90 wells a year, occasionally sends out a call for help to his 85-year-old grandfather, Adam W. Wershing, a retired building contractor and water witcher of North Olmsted, Ohio. Says young Wershing, "I only call on Grandfather when I'm in a tough area where good water is hard to find. He has seldom disappointed me."

The elder Wershing located his first well when he was 15. During the ensuing years he has "witched" several hundred wells. About 85 percent of these produced satisfactory amounts of water; in the other 15 percent small amounts of water were obtained.

It is a treat to watch Wershing at work. As his "prop," he prefers a freshly cut branch from either a peach or a wild cherry tree. The branch, shaped like a wishbone, is about the size of an ordinary pencil in diameter and is approximately 2½ feet long. As Mr. Wershing approaches his own well—a known water source—the entire branch twists and points downward. Efforts to stop the branch from twisting almost snap it and bruise his hands.

"The stronger the pull on the branch, the better the chance of finding water," explains Wershing.

"It is my opinion," he says, "that one's ability to witch water wells is a gift, something an individual is born with. I do not believe it can be taught or developed."

Contrary to Mr. Wershing, a prominent professor of geology believes that the techniques will work for about nine out of 10 persons, male or female. To prove his point, he recently invited 10 guests at a party to try their luck at water witching in their host's back yard. The sticks performed well for eight of the 10 persons when they attempted to locate a drum of water that had been buried for the experiment.

This scientist, who takes his geology students water witching to teach them scientific humility, says that "dowsing" has aided his work on numerous occasions.

The water-witching fraternity of this country now has its own organization. Known as the American Society of Dowsers, it has members in 30 states and four Canadian provinces. A number of prominent American scientists and educators attended their third annual convention.

Although no one has come up with a completely satisfactory explanation of why water witching works, one prominent scientist has this theory, "We are just beginning to learn about the chemistry of the earth," he explains. "The rods must bend by some physiological, chemical, or electrical force caused by a human with warmth in his hands walking over moving water. Though skeptics have done everything in their power to see that it doesn't work, it does."
...They're Off! And Running, Hopping, Walking, Flying in

REDLANDS ROOSTER RACE

By Hazel Howard

T WEN T Y Future Farmers in Redlands, California, believing that "All work and no play makes Jack a dull boy," took time out from vo-ag studies to enter a rooster race this spring. It was part of the city's Diamond Jubilee celebration.

By 3:30 in the afternoon, several hundred curious spectators thronged the sidewalks along downtown Orange Street.


"You can expect almost anything in California," another said.

"They had a rooster race in Redlands back in '38 at another Jubilee," a man recalled. "Won by a turkey." The bystander laughed. "This time, though," the informant continued, "rules specify that the race is restricted to one classification of roosters . . . chicken."

While the crowd milled around, the Future Farmers, each with a rooster snuggily tucked under his arm, began arriving and lining up behind the starting line. On their backs were large placards displaying the name of the sponsor whom they, themselves, had solicited. The previous day, the competing roosters had helped publicize the event by appearing in cages in front of their sponsors' places of business.

The "steeds," an assortment of breeds, colors, and sizes, included several bantams. Each wore a harness string measuring eight feet in length, which was attached to a leg or under a wing, although Little Joe, a brown banty, sported a red felt collar with the lead string fastened around it. Jockeys carried yardstick prodders or thin wooden sticks not over three feet long. When the starting gun sounded, the roosters took off, darting helter-skelter.

"My Snowball got tangled in a lady's dress," Larry Jacinto said, laughing. "He kept trying to push through the crowd, and when one lady refused to budge, he circled around her. Then near the end, I heard someone yell, 'Hurry up! Get him over the line!' I didn't know until later that Snowball finished fifth."

Charles Burtron, whose Leghorn, "Ace," won fourth place, broke his prodder. He, too, found the bird seemed determined to head for the sidelines. "I put him through his paces," Charles said.

Richard Pfalmer's brown banty, Little Joe, made third place, while Pegasus, a Rhode Island Red jockeyed by Larry Hays, was the second to mince across the white line. Fleetfoot, the winner, born April 2, 1963, on the Kraus Poultry Ranch in Mentone, a town ad-joining Redlands, proved the most ornery of the entrants according to his owner, Walter Kraus.

"He really went berserk," said the high school sophomore. "He'd keep lying down in the street and I had to poke him with a yardstick. Several times when he'd squat, he refused to budge and I picked him up. Then he'd get tangled up in the lead string and hide his head like a turtle. But he struttet across the line as if he knew he was the winner." Walter thinks it was a real coincidence that Fleetfoot won. "You see," he chuckled, "he was sponsored by Chicken Delight. That's a shop which delivers hot chicken dinners to your door."

The boys who won first and second places were presented with trophies with a rooster at the top, and each winner and sponsor received a ribbon.

Nowadays in southern California, roosters are as scarce as hens' teeth. If kept in Redlands, they are sure to run afoul the Nuisance Law, since their alarm clocks are considered a public nuisance. Consequently, quite a few had to be boarded in outlying districts until the event.

Of the five winning jockeys, two are ninth graders, two are in the tenth grade, and Charles Burton, a senior, is vice president of the FFA in Redlands. The race was just an exciting interlude in the Future Farmers' busy lives.
Don’t Miss An Issue

Keep The National FUTURE FARMER coming—even after you are out of high school. Just use the coupon below. It’s 75c a year for six issues, or two years for $1.00. Send in a dollar today and rest easy for two years.

Mail To:
The National FUTURE FARMER
Alexandria, Virginia 22306

Enclosed: — $1.00 for 2 years
— 75c for 1 year

Name ____________________________
Address __________________________
City ___________ State ____________

UGLY DUCKLING?

Well! Maybe it is. But what farm couldn’t use a portable combination welder and 3500-watt power generator? Regardless of what it looks like. To make repairs in the field, power tools, lights, and weld as needed. Cuts downtime. Saves repair bills. As you know, breakdowns never occur in the barn. So, with this WELDANPOWER 130, you can fix breaks where they happen. What’s more, it can be carried handily by two men. Ugly duckling? Maybe not. Looks better the more you think about it! But get all the facts. Fill out and mail coupon today.

The Lincoln Electric Company
Dept. 4844 C Cleveland, Ohio 44117
Please send brochure on your Ugly Duckling known officially as the Weldanpower 130. Thanks.

Name ____________________________
Address __________________________
City ___________ RFD# _______ State __________

True Tractor Tale

From Texas

In Hutchins, Texas, a steel-wheeled tractor, a set of shiny wrenches, and a Future Farmer named Rollin Heifrin have written a new chapter in the “Handyman’s Handbook.” From the weeds and mud of land he rented to graze his horses, Rollin came across a long-rusting tractor—1935 vintage. He completely reconditioned it, and is successfully using it to farm his 97 acres of Texas soil.

Like many Future Farmers, Rollin is a natural-born amateur shop mechanic. When he found the 1935 Allis-Chalmers tractor nearly covered by weeds in 1962, he knew he had to do his best to make it run again. With the owner’s permission, Rollin towed the antique into his farm shop and began to take stock of the task that lay ahead of him.

There were mountains of rust, lugs missing off the big iron wheels, and parts of all descriptions broken or missing completely. Undaunted, Rollin wrote to Allis-Chalmers headquarters in Milwaukee for an operator’s manual—for a tractor that had been built 29 years ago. The company searched through its archives and came up with one that listed the parts and servicing details.

With the help of Billie Schultz, a local mechanic, Rollin began to work. He found spare wheel lugs in a nearby shed and replaced cracked and missing ones. The engine was overhauled, cleaned, and new parts installed. Even Rollin’s mother joined in the chore by helping him hunt down odd spare parts such as square bolts. Everything was tested and retested; then the antique got a complete paint job as a finishing touch.

“With the new coat of paint I gave it, the old tractor looks pretty good.” Rollin told his advisor, Bruce Moreland, after the month-long job was completed. “It runs good too, except that the transmission must be worn,” the Future Farmer went on. “It seems to ‘hang’ in third gear.”

At the end of the reconditioning, the old engine sputtered and roared to life when Rollin turned it over. Start it with a crank? No, indeed! The Future Farmer winds a 10-foot length of rope around the belt pulley, then pulls ahead hard and fast to fire the engine. Though it’s a bit unconventional, it works, and Rollin doesn’t have to use the balky crank.

With the help of his “new” tractor and his younger brother, Rollin farms 97 acres of crops and pasture for his sheep and beef cattle. Profits from the farm and from the money he saved by reconditioning the tractor will send the Future Farmer to college. He sums up his prize tractor with a poem he recently finished in English class:

“I love my tractor with all my heart,
I hope that we will never part.
The engine it misses,
It fires and hisses—
I just hope that next time it will start!”

The National FUTURE FARMER
Test your art talent. Draw any or all these horses in pencil. Make your drawings larger or smaller than those below. If your drawing is selected in the contest you’ll win the commercial art scholarship.

Each of the horses is done in a different style or technique. You just draw the one you like best, or for fun, do all three. Winner receives a complete course in ad art, illustrating, cartooning and painting taught by America’s largest home study art school.

Even if you don’t win you’ll get an honest professional estimate of your art ability.

Entries for this contest are due September 30, 1964. Our students and professional artists are not eligible. Find out how talented you are. Clip this coupon and start your drawing.
BENEATH the late September sky, the rolling hills of the high country lay quiet, empty, and dreaming. The first frosts had crimsoned the aspens, and September winds had strewn their gaily colored leaves over the Big Horns.

From a jumble of rocks the man pushed his rifle forward slightly, sighting through its scope slowly, almost casually, resting the fine embossed weapon on the flat top of a boulder. He was more than satisfied with the spread of palms on the old bull’s head, as fine a trophy as the most exacting sportsman could want.

Smiling faintly, he knew that he had no right to expect such luck, for moose were illegal to hunt. He had spent a great deal of money and time, and the fact that he might be caught and fined only added zest and excitement to his adventure. He felt that he could handle any eventuality through his political connections, and because money talked.

He would have liked a closer shot, but there was no sense in pushing his luck too far. The cross hairs of the scope rested momentarily on the base of the old bull’s neck alongside the spine. The man held his breath and squeezed the trigger.

Three days earlier at the Crow Indian Agency well down the Little Big Horn River, the United States Indian agent stood at his window, fingering a letter in his right hand. Thoughtfully, he moved to the door of the outer office and called, “Alex . . . Alex Beaverhead! Come in here a moment!”

A thin, dark Indian rose from one corner and crossed the room. The agent gazed approvingly at the Crow’s clean denim shirt, the well-washed trousers, at his military bearing, and darkly handsome Indian features as craggy as the mountains above.

“Alex,” he said, holding out the envelope. “Read this! What do you make of it?”

Alex withdrew the single sheet of penciled paper and read quickly. “Those moose on Crow Reservation this time of year,” he said dryly. “Maybe east or north of Bald Mountain, somewhere.”

“I figured so.”

“Maybe heading down Little Big Horn before first snow come.”

Both men thought alike. This was bad medicine. The tip in the letter from a friendly rancher that a head hunter might be in their country disturbed them both. There had always been trouble with poachers, but a man who defied authority brazenly was dangerous. Alex handed the letter back to the agent, his sharp, intelligent eyes flashing.

“Think you can find him?”

“If it isn’t too late. This letter is three days old.”

The agent studied him. Alex Beaverhead was one of his trusted policemen, a thoroughly reliable Crow. He extended his hand and gripped the Indian’s slender, veined fingers. “Get anything you may need from the commissary,” he said, “and bring him in. We’ll (Continued on Page 49)
Grooming
Can Make the
Difference

will eat, making it damp with the grain. The heifer must also be clean. She is
washed soon after confinement for the training period and then every two
weeks until the show. Also wash her immediately after arriving at the show
and the afternoon before the show with an oil based soap. Tying with a chain
will prevent ruining your good halter and possibly injuring her head with a
shrinking wet halter.

Don't forget clipping and feet trimming. Two weeks before the show she
should have her feet trimmed to make her stand correctly. Try to force her
to stand up on her feet by grinding off the bottom of her toes.

The day before going to the show, she is clipped. Clip the head completely,
and her neck to a line extending from the point at the shoulder to the point
of the withers. She is also clipped on the flat of the rump and between the rear
legs. Clip the tail from two inches above the switch to the tail head.

Clipping takes a little common sense. Each animal is an individual problem,
and you must know her faults that need to be corrected.

A good job of fitting takes effort. It also requires you to be familiar with
your heifer. If you try to do a good job, you can make enough to more than
return your time and money. You will be surprised by the difference it will
make, and the money, too.

Author James Scott is a member of the Oklahoma State University dairy
team and has helped fit the University's show string plus showing his own cattle for seven years. For
this article, he conferred with O. C. Griffin, coach of the dairy team, manager of the col-
lege dairy farm, and former vo-ag instructor.

"Looks like he has hopes of finding water."

August-September, 1964
The Charolais

SELECTIVE breeding of beef animals in France around the beginning of the eighteenth century gave birth to a big-scale, fast-growing breed that we know today as the Charolais.

For the next 200 years, the developing breed was confined mainly to the Nivernais and Charolles districts of France, attracting little notice outside the country. Then, during the 1914-1918 conflict in France, foreign troops stationed in these districts took note of the large, cream-colored animals that local farmers produced.

One such foreign soldier, Jean Pugi-bet, a wealthy Mexican tobacco magnate of French descent, never forgot the animals he was fascinated with during his days as a volunteer French soldier. Twelve years later, in 1930, Pugi-bet imported a shipment of two bulls and 10 heifers to his ranch in Mexico. Two later shipments, in 1931 and 1937, brought the total number of animals to 37 head. They had come to be called Charolais because of their origin in the Charolles district in France.

All of the present-day Charolais in Mexico and North America are thought to be descendents of these original 37 head, since further shipments from France were prohibited because of the danger of introducing foot and mouth disease from Europe.

The modern Charolais is white or light cream in color with heavy muscling. Purebred bulls weigh from 2,000 to 2,500 pounds or more at maturity, with cows averaging from 1,450 to 1,750 pounds. The breed is noted for its fast rate of gain and growth and late maturity—a quality that produces rapid gains without excessive fat covering. Charolais are excellent for cross-bredding with other breeds, and resulting calves have been found to average from 10 to 20 percent heavier than straight-bred animals.

Although the breed is expanding rapidly in the United States today, the fact that only about 30 years have passed since they were first introduced has left a limited number of breeding stock available. Better quality breeding animals still bring a premium price whenever they are offered for sale.

Carcase contests in the U. S. have shown the Charolais to outgain many other beef breeds with more lean meat per 100 pounds of carcase weight and a higher rate of daily gain. As a result, many agricultural experiment stations are doing extensive studies on the breed at the present time.

Inquiries are invited at the breed's headquarters, American International Charolais Association, 923 Lincoln Liberty Life Building, Houston, Texas.
Mr. Advisor: "How can Future Farmers do their part in practicing Americanism on the chapter level?"

W. S. Hyde, Advisor, Kentwood, Louisiana

One of the purposes of the FFA is "to develop character, train for useful citizenship, and foster patriotism." In this time of unrest, Future Farmers have an unlimited opportunity to practice Americanism.

Committee work, group discussions, and voting on important issues are some of the many ways Future Farmers can develop citizenship to insure keeping our American way of life.

Americanism is based on God's laws, and Future Farmers in their work with people, animals, and soil are constantly reminded of God's great power. It is said that one should be able to determine a Christian by his actions. Similarly, one should be able to recognize a Future Farmer by his actions.

In his association with the people of his community, a Future Farmer can improve the American way of life by being "honest and fair in the game of life."

Socialism is a system which operates on the premise of getting something for nothing. Future Farmers are well enough informed not to accept this. When planning the activities of their chapter, they must always be sure they can adequately finance them without soliciting or assessing the members, parents, or people of the community. They know that they must work for what they receive.

Not only should Future Farmers practice Americanism, but they should also incorporate into their program of work an Americanism program for the community. In 1961-62, Louisiana Future Farmers sponsored seminars on Americanism with a great deal of success.

Future Farmers can meet the American challenge by setting up a demanding program of work consistent with the 12 purposes of FFA. As the chapter carries out this program of work and "develops character, trains for useful citizenship, and fosters patriotism," members are practicing Americanism.

G. O. Irvine, Advisor, Tonica, Illinois

Webster defines Americanism as "the spirit of loyalty to American ideals." We in Illinois are fortunate that the Illinois Agricultural Association has felt the need for an Americanism program for the FFA chapters in the state. The program was initiated in 1962, with a three-day conference at Illinois State University for chapter representatives.

For an incentive to chapters participating in the program, the IAA has set up an awards program of a trip to places of historical interest for 35 FFA members. These are representative of eight top chapters who have developed outstanding American Heritage programs in their communities.

A committee of eight FFA members was set up to plan our chapter Americanism program for the year. On July 4, 1963, eight FFA members from two churches with the aid of the ministers "rang the bells for freedom" to start our program.

We published two American Heritage Journals during the year, which were distributed throughout the community. In the first issue we had two interviews with outstanding citizens, the dates of our flag holidays, a copy of the American Creed, a report on the Washington tour by a member, the contest rules for the FFA "Name the Picture" contest we conducted for the student body, and an article on our "First Martyred President."

The second issue contained the winner of the essay contest we conducted in the grade school on "What America Means to Me" and a summary of the Americanism survey we conducted.

Other activities that created interest in the American way of life were: 1. Several reports were given in classes, one on the history of our flag. 2. Items concerning Americanism were placed on a special bulletin board in the study hall. 3. A report given on how a bill becomes law was illustrated by a poster made by an FFA member. 4. The chapter learned how to mark ballots correctly and held a mock primary election. 5. A study was made of capitalism, socialism, and communism. 6. Demonstrations were given to three community clubs on how to display the flag properly. 7. Our chapter attended a jury trial in April.

As a result of these activities, members of the Tonica FFA Chapter are more aware of their American heritage.
As Union Pacific Railroad's "Agricultural Improvement Car" rolled into Schuyler, Nebraska, this spring, Future Farmers came with animals to learn what's new in livestock.

One of the official greeters of American Dairy Princess, Sue Ann Godderidge, as she toured the New York milk shed was Bob Cummins, Star Farmer of America. The toast was milk.

Representing FFA at the President's Conference on Safety in Washington, D.C., John Remington from Stroud, Oklahoma, spoke with Stan Learned, president of Phillips Petroleum Co., and Tom Berk, Metropolitan Life Ins. Co.

Future Farmers at The Dalles, Oregon, are reminded of their future in farming each time they enter the vo-ag shop. This sign hangs on the wall beside the bulletin board. Members, John Oades, David Cooper, and Jim Powell, look on.

It was another FFA TV appearance for National Officers Nels Ackerson and Jan Turner as they met TV Producer John Stearns on his California television show, "Agriculture U. S. A."

A rope-making demonstration for students at Kent City, Michigan, High School helped give the local chapter's community service with rope. Future Farmers made 500 pounds of rope free last year for farmers, students, and stockmen.
Dawn was frigid with frost when Alex awoke to stretch stiffly. He shouldered his bedroll and set out on foot, chewing on a strip of jerky for breakfast, pine scent strong in his nostrils. After two hours he climbed steadily into brilliant sunlight, keeping always to the scrub timber that grew sparser as he neared timberline. He skirted grassy meadows thick with frost, where ptarmigan and sage hens darted out of the dry grass at his feet to run a few yards before squatting down again, their mottled feathers neither dun nor snow-colored, making them easily spotted by his hunter's eye.

It was late afternoon when he found moose tracks. Studying them intently, Alex judged that an old hull had been hazing a little band of cows and calves toward the northeast, bringing them upcountry from the dry western slopes to cross into the timbered drainage of the Little Big Horn. The tracks were two days old but as easy to read as print in a book. He followed, noting how they wavered as he progressed. He saw where the calves had stopped to play, where the cows had grazed while the old bull stood guard on a little knoll. Here the band had spent a day and a night. More cautious than ever, Alex followed, an urgency sharpening his perceptions and hurrying his feet.

Where a granite spur broke steeply from the face of Bald Mountain to meet the timberline, Alex came upon the dead ashes of a campfire. Grimly, he reasoned that his quarry wasn't more than a few hours ahead of him, tracking the band of moose to a more favorable place. Looking back over the way he had come, he reflected on the rugged condition of the country. It would have been difficult to get a moose head out of there. The man was cunning.

Alex let his sharp eyes rove over the campsite, wanting to judge the kind of man his quarry might be from the way he camped. He saw that the man was likely to be impatient and imperious; a litter of cigarette butts, several only half-smoked, marked the site. Alex had no fear that the man would be watching his back trail, for he was convinced that the poacher was now in a hurry. For that reason, he picked up the man's trail and followed it until darkness prevented further visibility. Then withdrawing into a dense clump of scrub spruce, he made a cold camp.

It occurred to him as he climbed into his blanket that if the man killed the moose outside the Reservation boundary, the crime would technically be committed beyond the jurisdiction of the Agency. However, the moose
were headed directly toward Indian land. It made a difference in the long-run, for poachers on public domain were often let off with only a minor fine. But a crime committed on Indian land was something else. The agent had full power to administer justice, and Alex was sure in his own mind that Major White would not be lenient—not with a reward out at least equal to the fine he could assess in addition to a jail term.

A freezing mist, light but shifting, greeted him when he awoke an hour before dawn. Snow bunting chirped sleepily over his head. His teeth chattering, Alex readied his pack, checked his rifle and belt gun, and set off into the thin dawn without eating. The man he hunted was no ordinary poacher. There were daring and craftiness in everything he did, and the man knew many tricks of hiding his trail. Abruptly, Alex broke to the right, away from the man’s route, and heaved up a ragged drift, making his way cautiously through down timber and over windfalls. He knew now exactly where the poacher had decided to make his stand.

Excitement mounted in him as, faintly, from far away a tenuous swirl of fragrant air brought him the unmistakable smell of tobacco drifting downwind. At the fringe of timber breaking clear onto Bear Flat just inside the Reservation boundary, he hunkered down, barely breathing. Before him, less than 200 yards away, a little band of moose was making slow progress toward the turbulent Little Big Horn at the far side of the meadow. From his hiding place he watched the man push a rifle forward over a distant boulder and heard its reverberating boom. With a sharp intake of breath, Alex watched the old bull leap convulsively to his death and the rest of the band disappear into the far timber.

Anger surged over Alex Beaverhead at this wanton destruction. He fined down on the man with his .30-30 carbine, then paused. It was against his code to shoot a man from ambush, and come to think of it, killing a man for a moose hardly contained the elements of equality. He must find some means of capturing the man fairly. Briefly, he fingered the steel handcuffs in his pocket. The man was too far away and might take alarm, in which case Alex’s own life could well be forfeited.

Somewhere the poacher must have a car.

Taking care not to make a sound, Alex withdrew, losing sight of man and moose as he dropped behind a low ridge. There he moved more freely, and faster. Coming across an old wagon road that he knew cut the highway a mile or so beyond Bald Mountain, he turned up the road. If he could prevent the vehicle from being used . . .

He saw it after a half hour’s swift lopke, light gleaming from metal and windshield where the machine had been hidden in a clump of scraggly spruce. As he approached it, he saw that it was a pickup and reaching the machine, he immediately lifted the hood and began to dismantle the distributor. He put the cap in his pocket. Just as he was intent on refastening the hood, he heard a voice to his left, crisp and cold, “Wait a minute, fellow. What’re you doing around my car?”

Alex controlled himself with an effort. He had misjudged the man’s own haste. Turning slowly, he saw the poacher standing in the fringe of aspens, a high-powered rifle trained on his chest. The face above the sights held a reckless daring, a bold hooked nose between rather too-close-set eyes—a man who would not hesitate to shoot. His jaw, darkened with a week’s growth of beard, was strong and weak at the same time, in its resolve to have his own way at all costs.

The man stared at Alex for a long moment, then let his rifle drop sightly. “Oh, an Injun!” he said contemptuously, striding forward. “Come, come, fellow! What d’you want?”

Alex saw that the man took him for a wandering hunter. Smiling inwardly, he spoke rapidly in his native tongue. The man frowned, his eyes scrutinizing Alex.

“Talk English!” he commanded harshly. “And be quick about it!”

Alex felt trapped. The disgust with himself he had felt on being caught flatfooted was giving way to calmness as his active mind cast up his chances. He edged sideways. “Put up gun,” he said gruffly, taking for time. “Injun only want to see why truck here. Injun want to look at engine.” He smiled at the man, enigmatically, stupidly.

For a moment the rifle held on him, then wavered. The stranger stared at him suspiciously. “Then take yourself off,” he ordered patronizingly. “Go on back where you came from! If I see you round here again, it’ll be a bullet through your heart.”

While the man was talking, thinking to scare a poor, stupid Indian into flight, Alex had edged away from the truck to the right of the man. As the rifle lowered, Alex exploded into action. With the man facing squarely into the sun, Alex leaped at him, both feet striking the man in the stomach. Bowling him over with an agonized grunt, the rifle discharged into the air, shattering the mountain stillness. With a single, quick backhand clip—one he’d learned in the U. S. Army on Okinawa—Alex slashed the man back of one ear with the hard edge of his hand.

The poacher immediately lost any further interest in his surroundings. With a grunt of effort, for the man was heavy, Alex Beaverhead dragged him to the truck, hoisted him into the rear end and securely handcuffed him to the sideboard. Then he replaced the distributor cap, retrieved his pack and rifle, got into the driver’s seat, and started the engine.

Several hours later he ratted into the Crow Agency, having dropped down the mountain on an abandoned sheepherder’s road. His heart was filled with satisfaction, for out of every evil can come some good. It wasn’t that he desperately needed the reward money, but it would come in mighty handy for supplying his son at college with things not generally included in an Indian scholarship. Also, he knew several destitute families on the Reservation who could certainly use the meat from the dead moose. Freezing in the high-country air, the meat would keep.

He drew to a dusty halt before the Agency headquarters. In the back of the truck, the man had ceased his snarling and threats and his $1,000 bribes to go turned loose with nothing said about the matter. The fact that he sat uncomfortably, sweating, amused Alex. The sharp ferreted eyes were worried, knowing that all the political pull he could have brought to bear on local authorities would have no weight with Uncle Sam. His fear, the first real fear in his shallow life, made Alex laugh silently, for it showed so plainly in the man’s face.

Alex Beaverhead opened the door and got out, pleased with himself. He had done his duty, and all that remained was to get his partner to help him retrieve his horse and go after the dead moose, dress it out, and return the meat to the Agency for distribution. Men are so foolish, he thought—some of them at any rate.

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

51—For the Young Hunter—This 32-page paper-bound handbook is written especially for young hunters. You’ll find sections on hunting companions, dogs, equipment, gunnanship, and outdoor lore. Its material and code for young hunters make it valuable reading. (Olin Mathieson Chemical Co.)

52—Practical Painting Pointers—Here are the solutions to hundreds of painting problems around the farm. In 31 pages, it covers such important areas as painting insulated buildings, preparing new construction, and painting concrete and plaster. Also, it includes basic rules for better painting results. Most material is illustrated. (H. Forsberg Company)

53—Happier Vacations—Taking a vacation away from the farm? Here is a handbook that in 60 pages tells you what to do before you leave, how to plan to see more sights, how to select motels, where and how to camp out, and how to vacation on a budget. If you spend time in the woods, you’ll want this booklet for its camping tips. (The Coleman Co.)

54—Fish Farming—Tips on how farmers can earn $250 more each year with a fish farming program. Here’s how to build a farm pond, what fish to stock in it, how it should be managed, and how to make money by letting others sport fish. Even includes a listing of farm pond booklets free from other sources. (Chemical Insecticide Corp.)

55—Where to Buy, Board, or Train a Dog—If you have a dog or plan to get one, you’ll want this 96-page directory. It’s a national directory of kennels in alphabetical order by states, plus tips on choosing a dog, boarding him, and training him. Additional free dog booklet information is also included. (Gaines Dog Research Center)

Attention

CHAPTER ADVISORS:

LET US HELP YOUR BOYS LEARN SAFE FIREARMS HANDLING WHILE EARNING AWARDS FOR SKILL!

An approved NFA Shooting Program will add interest to your Chapter Activities.

IMPORTANT BENEFITS INCLUDE:

- Marksmanship Instruction Manual for the Advisor or other Adult Instructor plus a personal handbook for each member.
- Government Assistance—Rifles, Ammunition, Targets.
- Range Construction Plans.
- Free “Club Champ” medal—annually.
- “The Club Leader’s Guide”, outlining NRA’s year round Junior Shooting program, awards, etc.
- A subscription to THE AMERICAN RIFLEMAN—all about guns and “shooting bulletins” each month.

Plus many other benefits—All for a Charter Fee of just $5.00

Write today for FREE information packet.

Gentlemen: Please send me your free YO-I packet, containing information on how to organize a junior rifle club in my FFA Chapter.

Name ___________________________ Age ______

Address __________________________

City, State _________________________

NATIONAL RIFLE ASSOCIATION
1600 F Rhode Island Ave., N.W., Washington, D.C. 20036

August-September, 1964
Top values in dress and work clothing, accessories and gifts. Buy by mail and save. Satisfaction guaranteed or money back. Write for your free catalog today.

The WRANGLER • Dept. CE-51
P.O. Box 930, Cheyenne, Wyoming 82001

Catalog

Top values in dress and work clothing, accessories and gifts. Buy by mail and save. Satisfaction guaranteed or money back. Write for your free catalog today.

The WRANGLER • Dept. CE-51
P.O. Box 930, Cheyenne, Wyoming 82001

CHEVIOTS

Thrifty, handy, easy lambing, excellent producers. Cheviot rams sire superior market lambs. Literature, list of breeders free.

AMERICAN CHEVIOT SHEEP SOCIETY
Lafayette Hill 18, Pa.

CHECKED YOUR GUNS LATELY?

When your firearms are stored, moisture in the air is their worst enemy. A clean firearm lasts twice as long - fires with greater accuracy.

SEND FOR FREE GUN CLEANING GUIDE
FRANK A. HOPPE, INC.
2339 N. Eighth St., Phila. 33, Pa.

For Breeding That Brings You $ $ $ USE SUFFOLK RAMS

Suffolks sire lambs that are healthy, grow quickly, are hardy and require little care. Past growth means early market when prices are best. Suffolks produce the type of good, solid, beefy meat that buyers prefer. Suffolks Meet the Meat Demands!

National Suffolk Sheep Association
Write Box 134-F
Columbia, Mo.

For Your Home
or Chapter Room

A binder to hold copies of your National Magazine.

ONLY
$3.00 EACH

2 for $5.00

• Dark blue with gold lettering
• Holds up to 18 issues
• Issues easily inserted & removed individually.

Send check or money order to:
The National Future Farmer
Alexandria, Virginia 22306

The National Future FARMER

A. Daybrook hydraulic hoist converts standard pickup truck to a dump body. Dashboard control operates twin cylinders. (Young Spring & Wire)

something new

B. Model "500" heavy-duty post hole digger digs 9- to 24-inch holes in hard ground. Operates easily from the tractor seat. (The Winpower Mfg. Co.)

C. High clearance portable Transtan bin is designed for bulk materials. Hydraulic legs give seven-foot clearance from ground. Has four-ton capacity. Plywood-steel. (Transtan)

D. Compass cutter cuts circles from 1 1/2 to 12 inches in diameter. Fits on your electric drill. (Nassau)

E. Antique Model 94 lever action carbine has look of an old timer, yet modern features. The .30 cal. has antique finish, saddle ring, seven shots. (Winchester)

F. Hand-powered "Small Fry" roller mill crimps, cracks, or flakes grain, a gallon per minute. Motor is also available. (Davis)

Free detailed information is available on the above products. Send coupon to National Future Farmer, Alexandria, Virginia 22306.

Please send information on products circled below.

A B C D E F
Name.................................
Route.............................. Box No.
City............................... State.................. Code...........
Offer expires August 31, 1964

The National FUTURE FARMER
SANDY KOUFAX, fire balling southpaw of the Los Angeles Dodgers, was professional baseball’s top pitcher last year. With 25 wins and five losses, he tied the Giants’ Juan Marichal in wins, although Juan lost eight games.

Sandy’s first organized baseball was playing first base as a senior at Lafayette High School in Brooklyn, New York. His main sport at the time was basketball. With his 6 foot 2 inch height, he was a good jumper, and his scoring earned him a University of Cincinnati scholarship. At college he went out for the Freshman baseball team as a pitcher, having switched from first at the suggestion of a manager who liked his hard throws. Major league scouts took interest when he fanned 34 batters in two straight games.

The then Brooklyn Dodgers soon had Sandy signed to a bonus contract. Since they were a title threat with good pitching, Sandy didn’t pitch often. He worked in only 12 games as a rookie in 1955. He started only five of those, won two games, lost two, and struck out 30 batters in 42 innings. Lack of control and trying to fire the ball by the hitter when he got behind were his big problems.

This went on for six seasons as he issued 405 walks in 692 innings, but he did notch 683 strikeouts. Sandy had the potential if he could learn to pitch with his head as well as his arm. It is reported that a teammate suggested he try to just get the ball over and not throw so hard, which seemed to help, as he began to relax and get some rhythm to his pitching. He pitched 256 innings in 42 games in ’61 and issued only 96 walks. He won 18 games, lost 13, and led the league in strikeouts with 269. It looked as if Sandy was off to a fine season in ’62 when a circulatory ailment in his finger sidelined him in July for the rest of the season. He worked in only 28 games, winning 14, losing seven, and recorded 216 strikeouts and 57 walks. He hurled his record second 18-strikeout game against the Cubs in April. His first was against the New York Mets in ’59, the only pitcher to ever pitch two. His 2.54 earned run average also led the league.

In 1963, Sandy worked in 40 games, all as a starter. He won 25, lost five, and pitched 306 strikeouts in 311 innings for a league record. He pitched 11 games last year of 10 or more strikeouts to extend his National League record to 51 such games and tied the record of three consecutive 200-strikeout seasons. He has 1,474 strikeouts in 1,443 innings, a major league record for pitchers with 1,000 innings. Sandy gave up only 58 walks in ’63, an average of 1.68 per nine-inning game and had seven no-walk complete games during the regular season. He added one more in the ’63 World Series.

Sandy pitched his second no-hit game against the Giants in May (his first was in 1962 against the Mets). His 1.88 earned run average led the league for the second straight season, and his 20 complete games were topped only by Warren Spahn. He threw three consecutive shutouts in nine days, and his 11 shutouts led the majors. His record-breaking pitching carried into the ’63 World Series as he fanned the first five Yankees to face him to tie a record and then set a record with 15 strikeouts in the first game. Eight more in the fourth game set a record of 23 strikeouts in a four-game series. His two complete games and two wins also tied records.

Sandy Koufax is the second player to win both the National League’s Most Valuable Player and the Cy Young Award as major league pitcher of the year in the same season and the only player to receive a unanimous vote for the Cy Young Award. Only 28 years old, a healthy Sandy Koufax should add many new marks to baseball’s record book.

Sandy Koufax, Dodger southpaw, was baseball’s top hurler last season.
The First One Doesn’t Have A Chance!

Grandpa was finally persuaded by his children to leave his isolated little cabin and move in with a daughter who lived in town. The family members were interested in how he would like television and were disappointed when his reaction to his first program was anything but enthusiastic.

“Bewilders me,” he explained, “I like the story fine, but for no reason I could see, some new character kept burstin’ in to talk about pills.” Henry Scherrer, Jr.

Bay City, Texas

Elephant: “What do you think you’re doing?”

Monkey: “Swinging from tree to tree.”

Elephant: “Who do you think you are—Tarzan?”

Monkey: “No, me Jane.”

Ronald Mawson

Archie, Missouri

Will: “Why did the elephant paint her head yellow?”

Bill: “She heard blondes have more fun.”

Dale Teutsch

Haughton, Louisiana

Those foreign cars are getting so small! When I put out my hand to turn a corner, one of them ran up my sleeve.

Norma Gilbert

Ruckersville, Virginia

There was a traffic jam and the inevitable horn tooter was blasting away. Then a young woman in the car next to his leaned out and inquired sweetly, “What else did you get for Christmas?”

William L. Petrashek

Table Rock, Nebraska

Wife: “How many fish did you catch Saturday, dear?”

Husband: “Six—all beaties!”

Wife: “I thought so. The fish market made a mistake again and sent us a bill for eight.”

Janice Gilmore Vanleer, Tennessee

Native: “What do you think of our little town?”

Visitor: “It’s the first cemetery I’ve ever seen with traffic lights.”

Marilyn Robinson

Peck, Kansas

Removing his shoes, he sneaked up the stairs, opened the bedroom door, and closed the door after him without being detected. Just as he was about to get into bed, his wife, aroused from slumber, turned and sleepily said, “Is that you, Fido?”

The husband, relating the rest of the story to a friend, said: “For once in my life, I had real presence of mind. I licked her hand.”

Ernest Miller

Lansing Michigan

The hotel clerk was losing his patience. “Look,” he said, “I’ve told you a dozen times we don’t have any rooms. We’re full!”

“If President Johnson came in,” the salesman persisted, “you’d have a room for him, wouldn’t you?”

“Yes, of course,” the clerk admitted. “Then let me have his room. He’s not coming.”

Gary Lillich

St. Francis, Kansas

“Now this may hurt a little.”

The two best times of the day for fishing are right before you get there and right after you leave.

Dick Raff

West Liberty, Ohio

Mother of small boy to psychiatrist: “I don’t know whether or not he feels insecure, but everyone else in the neighborhood does.”

Al Spong

Chicago, Illinois

Sign above drinking fountain in school: “Old Faceful.”

Milo Strand

Baisdell, North Dakota

Sign on side of highway: “Watch for school children, especially those who are driving cars.”

Mike Young

Lewisport, Kentucky

Charlie, the Green Hand

“This is the most cultivated area on the whole farm.”

The National Future Farmer will pay $1 for each joke published on this page. Jokes must be submitted on post cards addressed to The National Future Farmer, Alexandria, Virginia, 22306. In case of duplication, payment will be made for the first one received. Contributions cannot be acknowledged or returned.
Make big money for your FFA Chapter by selling this attractive, useful three-ring binder to your friends and classmates!

You don't have to be a super-salesman—here's a product that really sells itself! Bound in indigo-blue LEVI'S denim, with the famous LEVI'S leather Two-Horse label and a red-tabbed LEVI'S pocket, for your pencil and ball-point pen. Can be used for school notes, for farm and/or livestock records, for keeping back issues of NATIONAL FUTURE FARMER.

And here's the best news! When you order LEVI'S Denim Binders in lots of 100, they cost just $1 each—freight prepaid. Smaller orders (minimum 20 binders) can be purchased at 95¢ per binder, F.O.B. San Francisco. And you sell them at the suggested retail price of $1.65—so you can see how quickly your Chapter can build up the treasury with this great fund-raiser. Place your initial order now—and get started with the back-to-school crowd. All orders should be in multiples of 20 binders.

USE THIS HANDY COUPON...TODAY!

AMERICAN BINDER CO. OF CALIFORNIA
P.O. Box 71166, San Francisco 94107

Gentlemen:

☐ Please ship me ________ LEVI'S Denim Binders at $1 each, freight prepaid. (Minimum order 100 binders.) Payment enclosed.

☐ Please ship me ________ LEVI'S Denim Binders at 95¢ each, F.O.B. San Francisco (minimum order 20 binders). Ship C.O.D.

NAME

ADDRESS

CITY STATE ZIP NO.
"THIS ONE THING I DO...."

No, the photograph is not missing. YOU, Christian young person, are the subject.
DEDICATION IS THE QUESTION.

Dedication is a frightening word. In it are the elements of work, sacrifice, separation, single-mindedness, and loyalty. Dedication is hard; but without it, nothing of consequence is gained for God. If you are a selfishly ambitious, slothful, undisciplined, "arm-chair" Christian, stop reading here.

Not even the "World's Most Unusual University" can "make something out of nothing." If, on the other hand, you are interested in giving Christ your all, further consideration of Bob Jones University might be one of the most important steps of your life.

The well-trained man catches the world's eye. The dedicated man wins the world's respect. The Christian message that "Christ died for the ungodly" answers the world's need. Bob Jones University is committed to the task of producing highly trained, dedicated graduates to carry forth this message.

BOB JONES UNIVERSITY

Stands without apology for the "old-time religion" and the absolute authority of the Bible.

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

GREENVILLE, SOUTH CAROLINA