

The new National FFA Crop Production Proficiency Award program winner is from Jewell, lowa. Mike looks ahead to a bright future in agriculture for himself, and the thousands of other FFA members.

We would also like to salute the other three regional winners. Ronnie J. Curry, Sterling, Oklahoma (Western); Jeffery C. Miller, Kutztown, Pennsylvania, (Eastern); and Ronald Jones, Covington, Tennessee

(Southern).

The key to future farm production is in your

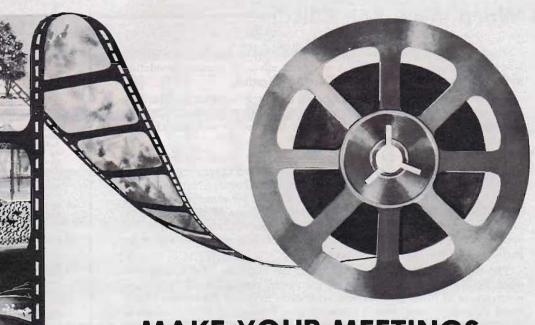
hands. And they are capable hands, indeed. We at Funk's are proud to be associated with the Future Farmers of America, as sponsor of the Crop Production Proficiency Award program.

We look forward to sharing a bright future with all FFA members.



The Producers of Funk's G-Hybrids.

Taking a new stand



MAKE YOUR MEETINGS MORE MEANINGFUL

Borrow This Interesting, New 4-Color Film
To Benefit Your Club Members

"The Sunshine Feed for the Best of Breed"

Scheduling this brand new movie is like having an agricultural nutrition expert as a guest at your meeting. This fast paced film takes you behind the scenes to show you facets of Florida's agribusiness industry that few people are familiar with.

Your entire club will be impressed with the painstaking process that produces Florida citrus pulp and pellets, the continued research and testing, and the end result in quality and yield among dairy cattle.

This free 16mm sound film tells its story smoothly and interestingly, and with it comes a supply of informative booklets on citrus by-products for your members. Get on the list for a showing to your organization by sending in the coupon below.



FLORIDA CITRUS PROCESSORS P. O. Box 2134, Daytona Beach, Florida 32015 Dept. FCC-67

Dates Preferred ______ Number of Members ______

Send Film Care of _____

Address _____

City ______ State _____ Zip _____

©Florida Department of Citrus 1977

A Word With The Editor-

There is a great year ahead for FFA. But it won't just happen. We are all going to make it happen—FFA members, advisors, alumni, foundation sponsors, FFA staff and others—all working together.

The first nationwide thrust will come during FFA WEEK, February 19-26. Using the theme, "FFA-Agriculture's NEW Generation," FFA chapters and state associations throughout the country will publicize the FFA and vocational agriculture.

In various states during the spring and summer, there will be district and state meetings, conventions, judging contests and other FFA eventsnot to mention what is going on in your own chapter. Nationally the Washington Summer Conferences, a total of seven for summer '77, will be held. Individually you may want to check out some of the proficiency awards sponsored by the FFA Foundation to see if there is one just for you; or get your chapter going on a BOAC project; or one in safety; or participate in the Work Experience Abroad.

The big rally comes in Kansas City at the National FFA Convention when Future Farmers from all over the nation kick off the fiftieth anniversary year of FFA. Work is now being done to insure the success of this event. A book is being written about the first 50 years of FFA, a movie is being made, a slide series prepared, a medallion is being minted . . . the list could go on. We will keep you informed as the year progresses but keep your eyes and ears open—you don't want to miss any of the action.

Yes, an exciting year for the over 500,000 members of FFA. Be sure to share in their activities as FFA begins the countdown to celebrate its fiftieth year.

Wilson Carnes

In This Issue.

American Agriculture and FFA 1:	In Every Issue
Active Alumni1	3
Jimmy Carter20	News in Brief
What's Ahead for Agriculture 2	From the Mailbag
Raises Rhododendrons	2 Looking Ahead10
Washington Conference3-	Chapter Scoop38
Get Ready for Busy Season4	FFA in Action48
Plant Wizard 4	The Joke Page 60

The Cover

Vocational agriculture has become increasingly diversified in recent years and covers a wide spectrum of occupations in agriculture and agribusiness. But one thing has not changed; that is the hands-on experiences of vocational agriculture students. The "learning by doing" applies today just as it did in the days when the FFA was first organized. That "hands-on" experience of the vo-ag students at Berlin, New Hampshire, pictured on the cover this issue could have been made in many parts of the country where forestry is an important industry.

Cover photo by Gary Bye

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

CORRESPONDENCE: Address all correspondence to: The National FUTURE FARMER, P.O. Box 15130, Alexandria, Virginia 22309. Offices are located at the National FFA Center at 5630 Mount Vernon Highway, Alexandria, Virginia 22309.

The National FUTURE FARMER is published bimonthly by the Future Farmers of America at 5630 Mount Vernon Highway, Alexandria, Virginia 22309. Second class postage paid at Alexandria, Virginia, and at additional mailing offices. Copyright 1977 by the Future Farmers of America. Single subscription, \$1.00 per year in U.S. and possessions. FFA members 75¢ paid with dues.

Single subscription, \$1.00 per year in U.S. and possessions. FFA members 75¢ paid with dues, ngle copies 20¢. Foreign subscriptions, \$1.00 plus 50¢ extra for postage.

The National

Volume 25 Number 3 February-March, 1977

MACAZINE STAFF MACAZINE STAFF

Editor, Wilson W. Carnes; Associate Editors,
John M. Pitzer, K. Elliott Nowels, Editorial
Assistants, Jo Colley, Mildred Bryan; Advertising Manager; Clenn D. Luedke; Regional Advertising Manager, L. J. Emerson: Advertising
Assistant, Laurie Welch; Promotion Assistant,
Craig Osborne; Circulation Fulfillment Manager,
Adriana L. Stagg; Assistants, Carolyn Roy,
Diana Devine, Helen Jonah, Ernestine Triner.

MATIONAL OFFICERS

NATIONAL OFFICERS NATIONAL OFFICERS

National President, James Bode, 114 North Calena, Geary, Oklahoma 73040; National Secretary, Bruce Maloch, Route I, Box 140, Emerson, Arkansas 71740; National Vice Presidents, Sam Brownback, RR 1, Parker, Kansas 66072; Rick McDaniel, RR 1, 2500 CH59, Nevada, Ohio 44849; Danny Schiffer, Route 8, Box 692, Orlando, Florida 32807; Julie Smiley, 1765 Smiley Drive, Mount Vernon, Washington 98273.

BOARD OF DIRECTORS BOARD OF DIRECTORS
Chairman of the Board of Directors, National
Advisor H. N. Hunsicker; Members of the Board,
John W. Bunten, Robert Crawley, Paul M. Day,
H. E. Edwards, John W. Laeey, Martin L.
Mitchell, Art Nelson, J. W. Warren.

NATIONAL STAFF NATIONAL STAFF
National Treasurer, J. M. Campbell; Administrative Director, Edward J. Hawkins; Associate Execeutive Secretary, Coleman Harris; Manager of International Programs, Lennie Gamage; FFA Program Specialist (Awards), Robert Seefeldt; FFA
Program Specialists (Contests), Ted Amick; Director of Information, Daniel Reuwee; Manager of
FFA Supply Service, Harry J. Andrews; Chief
Accountant, George Verragt; Administrative Secretary of FFA Alumni Association, Robert W.
Cox.

ADVERTISING OFFICES The National FUTURE FARMER
P. O. Box 15130
Alexandria, Virginta 22309
Robert C. Whaley
6430 Sunset Boulevand, Suite 91
Los Angeles, California 99028
Robert Flahive Company
615 Monteconary Street 703-360-3600 213-463-7157 obert Flahive Company 615 Montgomery Street San Francisco, California 94111



The National FUTURE FARMER, member of Andit Bureau of Circulations.

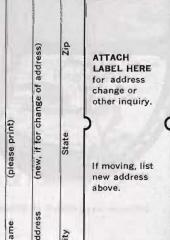
TO CHANGE YOUR ADDRESS OR ORDER A SUBSCRIPTION

Please use this form.

TO SUBSCRIBE: check the term below and fill in your name and address. ATTACH CHECK ☐ 3 years \$3 AND MAIL TO: ☐ 2 years \$2 The National

☐ 1 year \$1 Foreign subscriptions, add 50¢ a year extra for postage.

FUTURE FARMER P.O. Box 15130 Alexandria, Virginia 22309 ATTACH LABEL HERE for address



NIGHT PATROL, SUNDA STRAITS.



On the bridge, lookouts use moonlight to search their sectors— Java to port, Sumatra to starboard, Krakatau dead ahead.

A job in the Navy doesn't always let you knock off at five o'clock. But on a night as beautiful as this, you don't really care.

It's not just a job, it's an adventure.

The Navy has training in over 60 career fields. If you qualify, we can send you to school in anything from aviation to electronics, from advanced optics to heavy equipment operation. You'll travel, make new friends, get thirty days' vacation with pay.

Navy recruiters have the full story. Speak to one of them or call 800-841-8000 toll free. (In Georgia, 800-342-5855.) The Navy. If you're looking for adventure, you've come to the right place.

Capt. H. C. Atwood, Jr., U. S. Navy NAVY OPPORTUNITY INFORMATION CENTER P.O. Box 2000, Pelham Manor, N.Y. 10803		
☐ Send me more inf ☐ Call me. (G)	ormation on Navy opport	unities. (G)
NAME_First	(Please Print)	Last

NF 2-3/7

ADDRESS

NAVY. IT'S NOTJUSTA JOB, IT'S AN ADVENTURE.

Need help with training problems? Interested in learning and earning? Prof. Beery explains his methods in this 29-page book sent FREE with information about western training and special bridle included. Serving horse lovers since 1909. Write to: Dept. 2022. Beery School of Horsemanship—Pleasant Hill, Ohio 45359



HAMPSHIRES

Can give you that NET PROFIT you are looking for. Go and Grow with the Hampshire Breed, Write for information.

Jim Cretcher, Secretary The American Hampshire Sheep Assn. Rt. 10, Box 199, Columbia, MO 65201 (314) 445-5802

National Suffolk Sheep Association



SUFFOLK SHEEP Find out why there are more registered Suffolks than any other breed. Write

NATIONAL SUFFOLK SHEEP ASSOCIATION BOX 324-F **COLUMBIA, MISSOURI 65201**

RABBIT EQUIPMENT

Hutches, feeders, waterers, nest boxes, wire, hutch building supplies & tools, tattoo equipment, scales, books about raising rabbits, medications, skinning hooks, hide stretchers, live traps and dozens of other items.
For Catalog send 50¢ postage & handling.

JEWELL ENTERPRISES
Dept. F, Star Route, Detroit Lakes, Minnesota 56501

One of



There is only one official supplier of FFA merchandise. It is National FFA Supply Service, Alexandria, Virginia.

- Owned by FFA
- Operated by FFA
- For FFA

That's right. Totally owned by FFA members and operated for them. Controlled by the National FFA Board of Directors and National FFA Officers.

All income above the cost of operation is used by the organization for the benefit of FFA members—not as profit to any

Don't be mislead by companies trying to commercialize on the name and emblem of FFA. If it is not from the National FFA Supply Service located at Alexandria, Virginia, it is not official.

Your advisor is mailed a catalog each summer. See him to order your FFA items.

Support FFA! Order from the: National FFA Supply Service P. O Box 15159 Alexandria, Virginia 22309

News in Brief

The FFA

NOWELS NAMED ASSOCIATE EDITOR

-K. Elliott Nowels, a former FFA member and recent graduate of The Ohio State University, has been appointed to the position of associate editor for The National FUTURE FARMER. He has a background in agricultural communications, having received a degree in agriculture while specializing in journalism and public relations. Prior to this time he worked for the magazine as regional advertising manager. Nowels, a 22-year-old bachelor, replaces Gary Bye who has resigned in order to return to his family's wheat operation in the state of Washington.



GOOD SHOW!—The final tally on National FFA Convention attendance shows that 19,696 FFA members and guests attended the proceedings in Kansas City during the forty-ninth convention.

FFA BUYS MORE LAND—The National FFA Organization recently purchased about three acres of land adjoining the present holdings where the National Center is located in Virginia. A house is situated on the tract which is right next door to George Washington's historic Old Grist Mill. The purchase brings the total acreage owned by the FFA to 38 acres, all of which was at one time part of George Washington's estate.

FOUNDATION HAS RECORD YEAR-A final figure of \$838,491 was raised by the FFA Foundation in 1976 for the incentive awards program. This is \$62,491 above the goal for the Bicentennial year. The money came from 14,045 different businesses, organizations and individuals.

NATIONAL OFFICERS ON THE MOVE—The 1976-77 National Officers are gaining experience in various roles connected with agriculture and vocational education by making chapter visits and learning about individual state programs. Massachusetts, North Carolina, Ohio, Pennsylvania and Wisconsin were states most recently visited. In January they spent a week at the National FFA Center in Alexandria, Virginia, where they learned more about the total FFA organization. Their 1977 FFA National Goodwill Tour will be in February. The tour will take them across the United States, visiting leaders in government, business and industry.

DEDICATED SERVICE—Twentyfive national staff members who have worked for the FFA for ten years or more were honored at a banquet at the National Center recently. Harry Andrews, Catherine Echard, Joann Grimes, Edward Hawkins and Irene Shafer each received their 25-year service award and Pauline Coiner, secretary to National FFA Treasurer J. M. Campbell, received her award for 35 years of service from National Advisor H. N. Hunsicker. (At right)



CONFERENCE DATES SET-Times have been set for the 1977 Washington Leadership Conferences. Seven of them will be offered this summer, each running from Monday through Saturday. Four will be offered in June, two in July (none the weeks of July 4 or July 18) and one the first week of August. The conferences are designed to serve chapter FFA officers and advisors. Information brochures and registration forms will be mailed from the National Center in February.

The Mean Machine



Search the wide world over and you won't find a rolling tractor tire torture machine like this one. Because Firestone designed and built it so we could dial in almost any combination of tractors, implement weights and drags, soil conditions, and terrain right on Firestone's famous Columbiana Test Farm. Why? So we could just about reproduce the exact

pulling problems on your farm and design our famous Firestone 23° tractor tires to handle them.

Your Firestone Retailer has four lines of Firestone tractor tires. Pick the ones you want and see if the Mean Machine hasn't taught them to beat the best tire you've ever used before.



OFFICIAL MEAN MACHINE T-SHIRT \$2.49

Send check or money order to:

Firestone P.O. Box 25125 Cincinnati, Ohio 45225 T-Shirt Sizes: Child: 6-8 _____ 10-12 _____ 14-16 _____ Adults: 34-36 _____ 38-40 _____ 42-44 _____ 46 _____

Enclosed is \$

firestone

Allow four weeks for delivery.

Offer expires April 30, 1977 - Obio residents add 4% sales tax.

ATTENTION:

Recall of 22 Rim Fire Wildcat™ **Brand Ammunition Code Numbers** LF03 **LF52** LF12 **LF62 LF22 LF81 LF32 LF82 LF41 LF91 LF42 LF92**

We are recalling cartridges from 12 lots of Wildcat brand 22 long rifle rim fire ammunition due to excessive pressure in some of the cartridges which can make them potentially hazardous to shoot. Use of this ammunition can cause damage to 22 caliber firearms and could cause personal injury.

The ammunition being recalled is identified by codes that contain LF03, LF12, LF22 and all "LF" codes followed by a two-digit number greater than 22. The number 1, 2, or 3 may precede the "LF" in the code, and one or more letters may follow the two-digit number.

(A typical code on the box reads "1LF12PY".)

This ammunition can be identified by the Code Numbers shown above which are printed on the inside tuck flap of each 50 round box and on the upper right corner of the end panel of 5000 round cases.

If you have Wildcat brand 22 rim fire ammunition with any of these identifying numbers, please return it to your dealer for replacement. Do not mail the ammunition to us as this is against postal regulations.

This notice is limited to the Code Numbers shown above. All other Wildcat Ammunition is not included in this recall.

WINCHESTER Hostern.

From the Mailbag

Readers Report

Joplin, Missouri

This letter is to commend your organization and the fine young people in it.

I am not a farm-oriented person but did attend the Kansas City FFA meeting with my cousin Mrs. Joy Scheel of New Braunfels, Texas, the mother of Tod Elbel, recipient of the American Farmer degree.

After the award ceremonies, I accompanied Tod Elbel, his mother and Barney Handrick, his FFA advisor, to a dinner at a nearby restaurant.

As we were crossing Grand Avenue, returning to our car, the traffic control signal changed after we were more than half-way across the street. Somehow I slipped and fell in the path of an oncoming car traveling very fast.

Without hesitation or concern for his own life and personal safety, Tod came from his safe position to where I had fallen, grabbed my arm with both hands and pulled me out of the path of the speeding car. The speeding car missed us by inches.

His mother and Mr. Handrick watched in horror, helpless to assist in any way. I feel certain that without his immediate response I would have been killed.

The purpose of this letter is twofold. One purpose is to compliment FFA for achievement and character. The other purpose is to suggest and recommend Tod Elbel for an award or citation for bravery and heroism, if there is such an award or citation within your organization.

Mrs. Frankie Hale

Butler, Alabama

I just received my FFA jacket today and it made me proud to own this jacket of FFA. I feel everyone must feel that way when they receive their jacket.

Charlie Hearn

Selingsgrove, Pennsylvania

College is a choice which many agricultural students choose for their immediate future. Your article "Will you be a College Dropout?" gives much insight on making that huge step between high school and college. I entered Penn State University this year as a freshman and soon the differences became very clear. College demands a student's full time. A rule of thumb is two hours of homework for every hour of classroom time and even this proportion is sometimes very low. I would urge all high school students considering entering college to give the matter much thought before you make the final decision.

Lee Shaffer

Kansas City, Missouri

The news media have become experts in portraying everything bad . . . or disasterous. Seldom do the daily good deeds that people do hit the pages of our papers or news broadcasts.

It is particularly delightful to explain an incident which occurred during your convention in Kansas City.

Emery Air Freight had just picked up

a shipment from our inbound carrier at Kansas City International Airport. While our truck was returning to our terminal, the rear door apparently flew open. Two cartons tumbled out.

The two cartons contained \$4,100.00 worth of keychains.

After laying by the road a few moments, some of your people drove by the two boxes. They stopped and picked up the two boxes.

Your people put the boxes in their car and drove off. Later that day they called the consignee, Hallmark Cards, Inc. They told them they had found the boxes and made arrangements to turn the boxes, fully intact, over to Hallmark Cards.

On behalf of Emery Air Freight, may I say a very sincere "Thank You" to the group involved. Their act of honesty and civic responsibility does by far typify our American youth and your organization.

M. J. Mnookin District Sales Manager Emery Air Freight Corp.

Dunseith, North Dakota

We have received our commission check for \$20.85 and we appreciate it very much. We are planning to use the proceeds from the Official FFA Calendar program to help finance our part in sponsoring the Friendship For Alaska project.

Leland Azure

North Dakota chapters have taken on a project of helping the new Alaska chapters get established in the organization.—Ed.

Litchfield Park, Arizona

In your regards to the telegram sent to Mr. Carter by the FFA and giving him the backing of the organization, I was surprised that you gave him not only your backing but mine.

I am proud to be an FFA member and am sorry that the first previous Future Farmer of America president had to be Jimmy Carter. I am from Arizona which is in the West and went to Mr. Ford. As I watched Jimmy Carter win the Presidency I did not feel any pride, but regret and disappointment in the eastern part of the United States. They helped elect a man who will promote more governmental support in the field of agriculture. This will cause over supply and extra governmental surplus. This is exactly what today's farmer doesn't want.

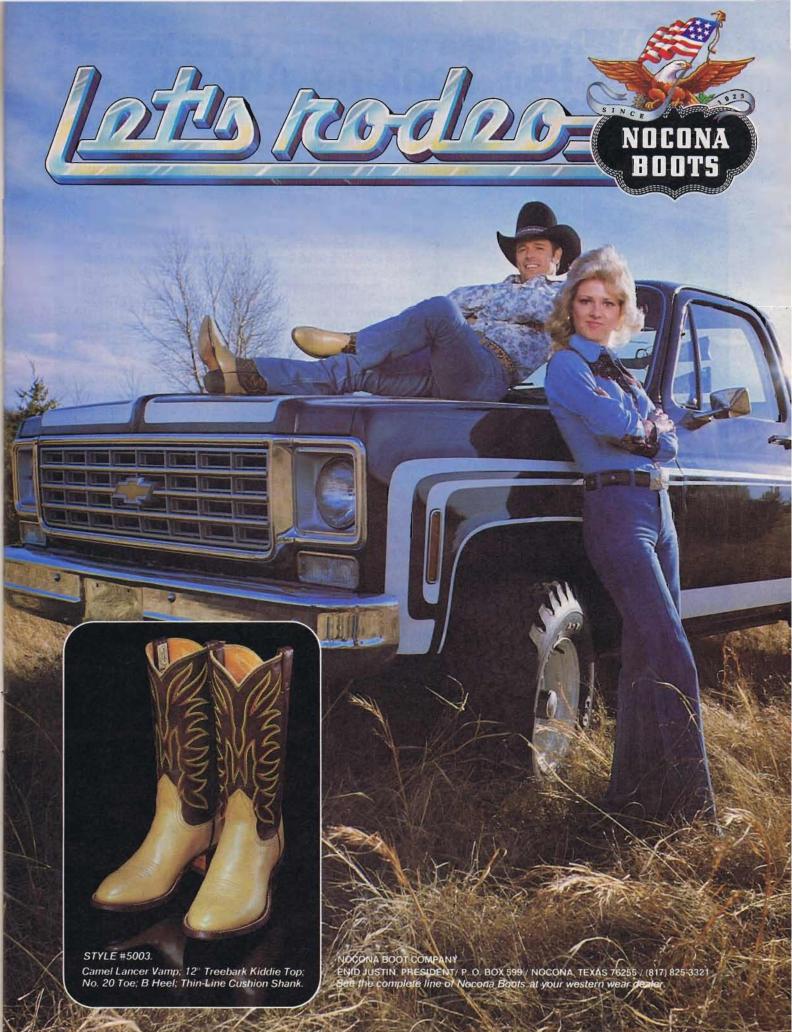
Finally I say to your congratulatory telegram from the half-million FFA'ers across the U. S.—make that half-million minus one!

Martin J. Etchart Agua Fria Chapter

Curtiss, Wisconsin

I would like you to know how much I like the magazine. It's always so interesting to read about what the other FFA members are doing and all the new techniques for farming that are being developed.

Jill Strassburger



Over \$5,000 in prizes

Awarded Monthly



Draw Lincoln

You may win one of five \$995.00 Art Scholarships or any one of seventy-five \$10.00 cash prizes.

Draw Lincoln any size except like a tracing. Use pencil. Every qualified entrant receives a free professional estimate of his drawing.

Scholarship winners will receive Fundamentals of Art taught by Art Instruction Schools, one of America's leading home study art schools. Our objective is to find prospective students who appear to be properly motivated and have an appreciation and liking for art.

Your entry will be judged in the month received. Prizes awarded for best drawings of various subjects received from qualified entrants age 14 and over. One \$25 cash award for the best drawing from entrants age 12 and 13. No drawings can be returned. Our students and professional artists not eligible. Contest winners will be notified. Send your entry today.

MAIL THIS COUPON TO ENTER CONTEST

ART INSTRUCTION SCHOOLS

Studio 7F-3540 500 South Fourth Street Minneapolis, Minnesota 55415

monthly contest.	VING IN YOUR (PLEASE PRINT)
Name	
Occupation	Age
Address	Apt
City	State
County	Zip

Accredited by the Accrediting Commission of the National Home Study Council.

Telephone Number_

Looking Ahead

Agriculture

SUNFLOWER SILAGE—Interest is growing in using sunflowers as a silage crop, according to a University of Maryland forage crops specialist. Features such as fast maturation and high tolerance of drought and cold could make the sunflower a good alternative for areas where the growing season is rather short.

AG ENROLLMENT HIGH—Despite a reported slow-down in overall college enrollment, agricultural enrollment at land grant universities continues to increase according to an Iowa State University survey. Ag enrollment has nearly tripled since 1963 with about 98,000 currently at college. Another trend is the growing number of women in agricultural majors. Women now constitute 28 percent of the national ag enrollment. The top ten land grant universities by enrollment are: Texas A&M, 4,151; University of California at Davis, 3,838; Ohio State, 3,822; Purdue, 3,714; Iowa State, 3,409; Michigan State, 3,258; Cornell, 2,976; Missouri, 2,715; Massachusetts, 2,711; Virginia Polytechnic, 2,701.

ONE ACRE MARSH—\$50,000—Based on replacement costs of all the functions they perform, wetlands are worth \$50,000 per acre or more, estimates a University of Wisconsin scientist. Beyond the obvious values for hunting, wetlands have definite values to the farmer and general public. Saving wetlands helps to prevent flooding by keeping water from running off the land. They provide supplemental water for livestock and can be a source of feed during periods of drought when other grasses are not available. They also have a good capacity for filtering out water pollutants such as sewage.

EAGER EATERS—Americans consumed more red meat in 1976 than in any other year in history according to economists at North Carolina State University. Total consumption was about 8 percent larger than in 1975. Beef consumption has continued the rise that has been characteristic since 1960 and pork consumption remained fairly stable. The 1976 beef production totaled about 25.8 billion pounds, while 12.2 billion pounds of pork were produced.

NEW DRYING METHODS—In the near future corn may be dried by solar energy or a microwave-vacuum system in order to save fuel according to the Energy Research and Development Administration (ERDA). The microwave-vacuum system is built around the fact that water vaporizes at a much lower temperature when it is within a vacuum rather than at normal air pressure. Such a system is expected to use much less energy than conventional drying units and will run on electricity rather than direct burning of scarce natural gas. These efforts are being made to trim down the current use of more than a billion gallons of liquid propane and natural gas to dry each harvest.

GET SET FOR AG DAY WITH THE DUKE—John Wayne has been named honorary chairman of American Agriculture Day, set for March 21, 1977. Ag Day is an annual effort to build understanding between agriculture and the consumer by providing the ag community with an opportunity to tell the story "almost everything starts on the farm," according to Ernest T. Marshall, executive director of the yearly project. "The Duke," a rancher from Arizona, will be featured in television and radio spots promoting agriculture.

SURVEILLANCE—The USDA is using a highly sophisticated system of code words, microfilms and a computerized index to keep track of 40 foreign animal diseases. They're charting how a given disease starts, spreads, and the rate at which it spreads, so that if a potentially dangerous disease should enter the U.S. it could be discovered and eradicated on short order.

"MoorMan's Premix-trate and Sav-A-Man Mill help us hold down cost of production"

says Illinois pork producer Art Lehmann

"We like the efficiency, flexibility and economy of building our rations with MoorMan's," says Arthur W. Lehmann, Livingston County, Ill.

He and younger brother, Ken, are partners in Lehmann Farms. They market 2,500 to 3,000 hogs a year from their sows.

They're fed MoorMan's since 1969 and have had their automatic electric Sav-A-Man® Feed

Mill since May, 1974.

They use MoorMan's Premix-trate® for Hogs to fortify soybean meal and corn with multiple-source protein, vitamins and a complex combination of minerals.

"With Premix-trate," says Art, "we grind and mix all our rations except for pelleted Moor-Man's Baby Pig Treats™ that we creep feed."

"We make six standard rations. Three are for sows—gestating, farrowing and nursing. The other three are for growing and finishing."

Continues Art, "Together, Premix-trate and our Sav-A-Man Mill help us convert our corn into pork efficiently, with a minimum of feedmaking time and only a few cents per ton outlay for electricity."

Other labor-saving, efficiency-promoting MoorMan Livestock Equipment also is sold by our representatives who call direct on farmers and ranchers.

Their helpful, on-the-spot feed-counseling service includes tailoring research-developed feeding and management programs to the livestock producer's operation.



Says Art Lehmann, "Our pigs grow fast and gain steadily on our MoorMan-fortified rations. We're especially pleased with our hogs' feed conversion."

He's shown in their new 1,000-head growing-finishing house which has fully-slotted floor, nylon curtains on sides that are thermostatically raised and lowered.

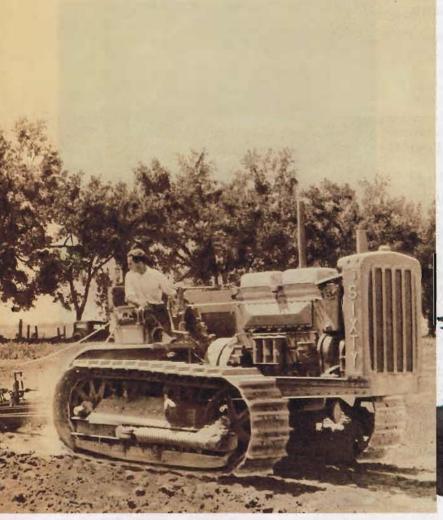
Art was graduated in 1969 from Western Illinois University—majoring in agricultural economics. He's a board member of Livingston County Pork Producers and is on PCA Advisory Committee.

About their Sav-A-Man Mill, Art says, "A great time and work saver. It takes less than 5 minutes to change rations and start it up. While it grinds and mixes, we can do something else."





Moorman Mfg Co. Quincy. III 62301





We were ready with the fuel for the first diesel tractors.

Up until the late 1940's, there were only a few diesel farm tractors being operated in the United States. Despite the small number, we offered the farmer a diesel fuel to run them.

Today, virtually all of the larger tractors are diesel models. And we have improved our diesel fuel to the point where we believe it's the finest you can buy.

Amoco ® Premier diesel fuel is specially formulated for modern diesel engines. It has a high cetane number for fast starts. It's low in

sulfur for reduced engine deposits. And it's blended to give the right flow and burning properties for smooth power and less smoke.

It also has an exclusive additive combination called D-Guard that helps protect your diesel engine from rust, corrosion, gum deposits, filter clogging, and other fuel system problems.

So for top power and long engine life, get Amoco Premier diesel fuel with D-Guard from your Standard Oil Man. All of his Amoco products

And we're ready today with a great one.

are backed by the company with more than 75 years of service to farmers.

Call him today.

Our job is you.



(SO) Standard Oil Division of Amoco Oil Company

American Agriculture And the FFA

By James M. Thomas



Thomas speaking at the National FFA Convention.

Few speeches are published in The National FUTURE FARMER. However. this article was taken from a speech by Jim Thomas, a lawyer from Savannah, Georgia, who served as National FFA President in 1959-60. The speech was given at the Massey-Ferguson dinner during the 1976 National FFA Convention. It best describes the conditions in rural America at the time the FFA was founded and identifies some challenges facing agriculture today. The editors thought that printing it here for all FFA members was an excellent way to launch the first issue of 1977 as FFA approaches its fiftieth anniversary.

MADE my first journey to Kansas City in the fall of 1956. I came with all the anticipation of one who had never traveled beyond the boundaries of his native state. It was a memorable trip, and the impact of its sights and its sounds has never left me.

As the train brought us across the Midwest I could see farm crossroads, where row upon endless row of storage bins were holding part of the country's enormous grain surpluses so common in that era.

Once in Kansas City and registered as a delegate to the convention, I began to meet fellows from everywhere—German kids from the great farms of the Dakotas, ranch boys from Wyoming, the sons of Pennsylvania dairymen,

Iowa hog growers, and Mississippi plantation owners. For the first time in my life, I began to grasp what it really means to live in America.

On the convention floor, amidst the ceremonies and pageantry, I saw the country's agriculture portrayed as a basic industry—as a priceless heritage. There, too, I marveled at the leadership skills of Future Farmers my own age. I returned home excited at the possibilities that lay before me and fully aware that I, just an average boy from rural Georgia, was fortunate indeed to have the advantages of the FFA.

Nearly half a century has passed since a small group of high school vo-ag students and their advisors came to Kansas City and the Old Baltimore Hotel for the purpose of holding the first National FFA Convention. In looking back upon those early days, we ought not overlook the conditions of the times.

For agriculture, the 1920's was a decade of intense distress and depression. With World War I over, demand for farm commodities began falling sharply in the summer of 1920. By the end of 1921, farm income had dropped by 40 percent. The prices for wheat, cotton, pork and the like had plunged to levels from which they would not recover for nearly 20 years.

The collapse of prices was made the more serious because operating costs held firmly. The depression that struck agriculture in 1920 did not become nationwide until commencement of the Great Depression in 1929. Yet from 1920 on, waves of foreclosures and rural bank failures were common in farming areas across the land.

If the economics of farming in the 1920's were difficult, so was life on the farm. It was a day of horse and mule agriculture, whose stock in trade was hard work of the back-breaking variety. Farmers and their families were part of a cycle of drudgery on the land that few of us today can even begin to comprehend. We might recall that the first light gasoline tractor was not fully developed until 1926. The mechanical cotton picker was not even invented until 1927. Neither of these vehicles were widely used for another 15 years. The marvelous machinery that would revolutionize farming in this country was perceived by only a few. They were looked upon with disbelief.

The "good old days" we hear so much about were a myth on the American farm of the 1920's. Save for the glow of oil lamps, the farmstead was dark after the fall of night. In 1925 only 205,000 farms had any kind of electrical outlets. One out of ten American farms had running water. Indoor plumbing was uncommon, and the farmer with a radio or telephone was a rarity.

Nor can we overlook that marvel of the day—the nation's network of farm-(Continued on Page 14)

Agriculture_FFA

(Continued from Page 13)

to-market roads. Ungraded, with potholes that broke the axles of the best Model T, impassable in wet weather, these so-called roads of rural America closely resembled a network of second-rate cowpaths. As a consequence, the American farmstead was isolated. Frequently it was lonely.

The isolation of which I speak drove a cleavage between farm and city dweller. This was the era when the terms "rube, hayseed, and country bumpkin" were part of the national jargon; an era we might note that has vanished.

In the region from whence I come, the Deep South, rural conditions were appalling. A one-crop, cotton economy had eroded the land and impoverished the people. Declining cotton prices and the onslaught of the boll weevil were hammer blows to southern farming during these years. From South Carolina to Mississippi and Arkansas, the region's plight was characterized by unpainted houses, ramshackle farm structures, gullied fields, and anemic children.

Agricultural historian Gilbert File tells us that these were the days in which the term "farm problem" first came into use by the nation's public leaders. Small wonder.

It was amidst these discouraging conditions, perhaps in part because of them, that a small group of educated men, all of whom were then administering the vocational agriculture programs established by the Smith-Hughes Act, saw a need for a Future Farmers of America. Its primary aims were to improve agriculture and develop leadership capabilities among farm boys studying vo-ag.

In a period, now considered the "black years" of agriculture, the young organization adopted a creed that begins with these words:

"I believe in the future of farming with a faith born not of words but of deeds . . ."

While ambitious mothers were urging their sons to set their sights off the farms of America, the creed said:

"I believe that to live and work on a good farm . . . is pleasant as well as profitable . . ."

In an era when farm youth were considered backward and disadvantaged, those early Future Farmers declared:

"I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly . . ."

Though surrounded by the harshness of rural living, the creed of the founders and their students concluded:

"I believe that rural America can and will hold true to the best traditions of our national life and that I can exert an influence in my home and community that will stand solid for my part in that inspiring task."

How prophetic were those words. Farming in the United States did have a future, though it would be radically altered by a revolution of science, mechanics, electricity, and heavy capital investment. The technological avalanche that has swept agriculture has made it the most productive and efficient in the world. Professor Hiram Drache of Concordia College describes these fantastic developments as, "the greatest free-enterprise story ever experienced."

Today, life in the open country is pleasant. It can be immensely profitable. The modern farmstead has the same conveniences available in the city, and it is not uncommon in any given area to find producrs who measure sales volume on their farm and ranch operations in the hundreds of thousands of dollars.

Rural America has held true. Future Farmers, true to their intentions and training have, in fact, stood solid in all the great changes that have transformed the whole agricultural complex. More often than not men with vo-ag and FFA backgrounds have been leaders in the revolution. They can be found on some of the most productive farms and ranches in the land. They are serving as commissioners of agriculture, as heads of farm credit institutions, as directors of marketing co-ops, as leaders in every walk of life. Had he lived, Jerry Litton, a past national officer, would be in the U.S. Senate. One who was once an officer in the Plains, Georgia, FFA Chapter is President-elect of the United States.

The Future Farmers of America has

grown and flourished because it was built around a set of objectives that are basic in the society of which we are a part. The organization and its program have become a national resource. It is a living monument to the skills and the values of the founders—W.T. Spanton, Henry Groseclose, C. H. Lane, H. O. Sampson and Walter Newman. Long ago those men recognized that agriculture is the soul of industrial America.

The problems of American agriculture and farm life today are different altogether from the problems and issues which W. T. Spanton and his colleagues sought to grapple with in the 1920's. We would do well to consider them, albeit briefly. In doing so we might remember the words of Abraham Lincoln, who in describing the dilemma of the nation once said: "As the case is new, so we must think anew."

The farmers of America have learned how to produce food and fiber in a manner that stands the world in awe. Nowadays the trick is to finance production costs.

When asked what's wrong with farming recently, a retired farmer said, "Well, in my day when we talked about what we could raise on 100 acres we meant bushels of corn, not loans."

President John F. Kennedy was fond of telling the one about the modern farmer who told his neighbor, "I hope I break even this year. I can use the money."

In times past farmers and bankers held each other at arm's length. Not any more. The Nebraska Agricultural Experiment Station recently published the results of an eye-opening economic

(Continued on Page 58)

Photographer of the Year

Gary Bye, associate editor of *The National FUTURE FARMER* was named Photographer of the Year by the American Agricultural Editors' Association at their winter meeting in Chicago. Bye represented one of 52 publications with 227 entries in the annual contest which recognizes outstanding photographs in farm magazines.

In addition to being named Photographer of the Year, Bye was awarded first and fourth place in the single editorial photograph division and placed in the photo-story category. The Photographer of the Year award is selected on the quality of a portfolio of up to 20 photographs that can include the aforementioned photos as well as magazine cover photographs. Several of Bye's award-winning photographs appeared in



The National FUTURE FARMER during the past year.

A member of *The National FU-TURE FARMER* staff since 1974, Bye resigned recently as associate editor to return to his native state of Washington. He will assist with the family wheat farming operation and take on assignments as a free lance writer and photographer.





Additional guidance from the veterans made the corn plot an effective educational project. Students learned more about tillage and applying chemicals.

Active Alumni

Evansville FFA Chapter and alumni affiliate form a winning team for community service and education.

PRIDE and communication might be the two words that explain the success of the 1976 Outstanding FFA Alumni Affiliate of Evansville, Wisconsin.

The Evansville affiliate, with a membership of 78, of which 47 are life members, was chosen the best of the affiliates entered in the national contest. They were recognized for their outstanding support and contributions of time and work to their local Evansville FFA Chapter.

"We started about three years ago with a small group of enthusiastic people who made up a program of work and began recruiting other members," explained Ray Weigand, Evansville FFA advisor and alumni life member. "The organization began to snowball and now we have the largest number of life members of any affiliate in the country."

Since then they have assisted the local chapter in numerous activities including maintaining an annual corn test plot, constructing a city welcome sign, providing firewood for a nursing home and holding a fund-raising slave auction.

The annual corn plot is one of the best examples of cooperation between the alumni and the local chapter. The corn plot consisted of 26 different varities in 1976, the majority of the seed being provided by alumni members. Planting, chemical application, cultivation and harvesting were all controlled to insure valid results, even to the point of using equal machines for all operations. Thirty-eight acres were planted and the alumni assisted by providing machinery and mixing chemicals, as well as a bit of "off the cuff" instruction when it was helpful.

After harvest the FFA members normally would print and release a report containing data like cost factors involved, over the scales yield comparisons, and stand-ability, but this year nature had other plans.

"We didn't have enough moisture this year for a harvestable crop," said Weigand, "so we chopped the corn and planted test plots of winter wheat."

He looked on the bright side, however. "I think having this as a reminder that the business of farming is a risky one containing a few uncontrollable variables was a good lesson for the students."

Many of the ideas for student-alumni cooperation aren't so serious. Each fields basketball and softball teams and friendly competition draws many spectators to the games. The annual slave

auction with a certified alumni auctioneer presiding brings in over \$1,000 to the chapter coffers, of which they give ten percent to the alumni as a "thankyou" for their assistance. The members work a day for whoever "buys" them and this year three members brought over \$100 apiece. The proceeds are used to send members to the Washington, D.C. Summer Leadership Conferences or for scholarship purposes.

In starting cooperative activities, whether service, social or otherwise, the avenues for communication and cooperation between the chapter and the affiliate are always open and relatively simple. An idea begins in the chapter and if it is a project that could be enhanced by alumni participation, a representative attends either the regular meeting or executive committee meeting of the alumni where it is discussed and a conclusion reached.

"The main objective of the alumni is support of the local chapter, so if they feel that alumni involvement would further the cause, usually the alumni are more than happy to be included, whether it be a social gathering or a work session," the advisor said.

The affiliate has a number of its own functions and in the final analysis about two-thirds of the organization's activities are of a work-oriented nature while the remaining third are social such as an annual banquet and picnic.

How does a group like the Evansville Alumni stay active and advancing? Advisor Weigand thinks that pride and communication go a long way toward these goals.

"Keeping the members informed about what's going on is one of the biggest single ways to maintain good participation," said Weigand. "They've got to know what's happening and when."

The Evansville affiliate has several good modes of communication, including a monthly newsletter, extensive use of their local newspaper and perhaps the most unusual but effective mode is their "hotline" or telephone chain. The hotline works in a pyramid fashion, beginning with one individual calling several people, each of whom in turn calls several more members.

"With the hotline we can drum up a lot of action in a very short period of time," said Mary Weigand, Ray's wife and state alumni council member.

Pride in both the recent award and the role they play in the community serves as an added stimulus toward other achievements.

"I think the students are just as proud of the award as the alumni are," said Weigand. "They realize that the reason the local chapter has been successful in our state activities is that they've had alumni support."

Before 1954, we made some of the most accurate 22's you could buy.



But we weren't satisfied.

When we built our first 22, quite frankly we thought we had ourselves one heck of an accurate gun. Then 1954 came along.

That's the year we came out with Micro-Groove. The rifling system that made an already precise rifle even more precise.

The Micro-Groove system cuts down on bullet distortion and prevents gases from escaping that can rob a bullet of its power.

And you get it in every Marlin rifle we make. Including our Model 99C 22 autoloader. But the 99C is more than just accurate.

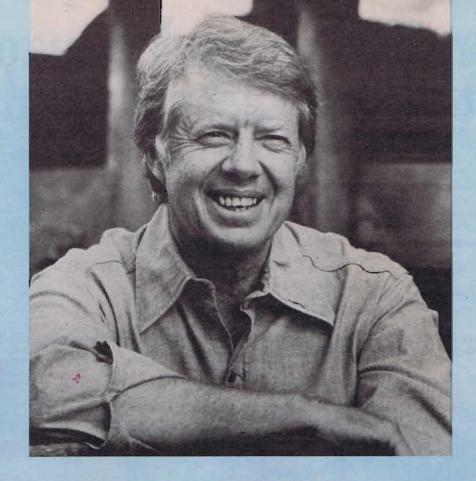
It has a one-piece Monte Carlo stock turned from

genuine American black walnut and handsomely checkered. A brass tubular magazine that holds 18 Long Rifle cartridges. Plus a solid top receiver grooved for scope mounting, side ejection, ramp front and adjustable rear sights, and a special bolt hold-open mechanism for added safety and easier cleaning.

The 99C rifle and fast-handling 99M1 and 989M2 carbines, about \$69.95. Or the 49DL rifle, about \$75.95. See the entire Marlin line and popular-priced Glenfield rifles, at your gun dealer's.

Also be sure to ask for our new, free catalog. Or write Marlin Firearms Co., North Haven, Connecticut 06473.





His Ag Teachers Remember . . .

JIMMY CARTER

By Gary Bye

WHEN Jimmy Carter took the oath of office on January 20, he became the first former FFA member to achieve our nation's highest office. Throughout the campaign President Carter manifested his concern for agriculture and his pride in having a farm background.

In relating to the massive farm crowd at Farmfest '76 in Minnesota, for example, Carter began by telling of his early affiliation with the FFA. "The first elected office I ever held was as secretary of the Plains Chapter of the Future Farmers of America. I still have a great respect for that organization and for the industry of agriculture," he said.

But what was vo-ag student Jimmy Carter really like? And what kind of FFA chapter did they have in the small—but now famous—town of Plains?

Mr. L. King Moss, now superintendent of Marion County Schools in Georgia went to Plains as an agriculture teacher in 1938, the year Jimmy Carter entered the ninth grade.

"The first place I went to when I arrived in Plains was out to his farm to tell him that I was to carry him to a forestry camp. He had earned the trip the year before. He was one of the top students—probably the top student—in his class."

Although the 38 years since that first meeting have dimmed most of the memories of the student Jimmy Carter, Mr. Moss volunteered to *The National FU-TURE FARMER* magazine a few snapshots he had of our current President as a vo-ag student. "In one picture the boys had built some exhibits for open house in the gymnasium—a miniature farm home, Mount Vernon, and the White House. I guess that was Jimmy's first real connection with the White House."

During Jimmy Carter's senior year, Mr. Moss took a job teaching agriculture in a neighboring town and was replaced by Mr. L. L. Spence, now a feed dealer in nearby Dawson, Gergia. Mr. Spence remained in Plains for 12 years. When asked about Jimmy Carter's agricultural projects, Spence responded, "Although I can't remember for sure, you know it's been 36 years, I would say Jimmy probably had some peanuts and corn and a livestock project, either a steer or some swine. Those were the four that were most prevalent at that time."

Spence's recollections of those early years of the Plains vo-ag program dwell on the influence of the Carter family. "Mr. Earl Carter, that was Jimmy's daddy, was on the county board of education and that was good for us. They hardly had a board meeting that Mr. Carter didn't come by and sit with me and see if I didn't need anything or want anything to help out the FFA. He was just a real friend of the Future Farmers of America. He was always the one paying their way to camp or to Kansas City."

Did Spence every think Jimmy Carter would become President of the United States? "I think that Jimmy Carter has surprised the whole world," he responds. "I really felt one time like, 'I wish he wouldn't do that.' You know how you feel. Because I didn't think he would ever whip the establishment. I guess he proved something to all of us."

Spence says the size of the FFA chapter during Jimmy's senior year was between 30 and 40 members. Under Spence's guidance it later grew to 60 or 70 members and produced a National FFA Officer in 1952. Billy Howard from Plains was the Southern Region Vice President and at that time was Plain's biggest claim to fame.

Mr. Spence also had the chance to teach Jimmy Carter's younger brother Billy, now a national figure in his own right. "Billy was a character, sure enough," says Spence, but he was a good student and real smart. Oh, he'd try to blow smoke at you and bowl you over acting one way, but he knew what was going on. He really never got too involved in FFA because at that time he was living in town and didn't get the chance that the boys did living on the farms. Jimmy had lived on the farm."

The Carter farm played a special role in the activities of the Plains FFA Chapter. Mr. Spence noted that Plains was the only chapter in Georgia to have their own peanut allotment. "That too was made available from Mr. Earl Carter. He said he rented us the land, but he just gave it to us. Then he went before the agriculture committee to get the chapter the allotment. So the FFA had its own farm operating on Earl Carter's farm."

Another agriculture teacher and FFA advisor that had the opportunity to work with the future President of the United States was Mr. Buford Reese, now principal of Central Junior High in the Sumter County system, the county in which Plains is located. Reese taught agriculture in Plains for 13 years during which time Jimmy Carter was on the

Board of Education. Among those he taught were Carter's sons Chip and Jeff.

"One of the first things Jimmy Carter did when I was hired on in 1956 was to ask what we needed in the agriculture department. I made a list and didn't think there was a chance of getting it all. I showed it to him and he said I'll let you know tomorrow how we did. The next afternoon he called me and said go ahead and get what you want. That's the kind of man he is, he supports you all the way across the board."

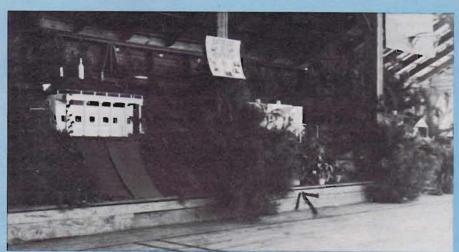
During those years Carter's Warehouse was sponsoring a corn contest for the local chapter. Jimmy Carter and Mr. Reese worked together to improve it. "We set up a point system where we'd involve students in several enterprises, including corn, cotton, peanuts, hogs, you name it. It also took in judging contests and plant identification. Then whoever got the most points on a chapter basis, the Warehouse would sponsor to Kansas City for the National FFA Convention. Every year under Jimmy's signature they sent two or more students."

The FFA chapter in Plains now numbers 91 members.

For their part in the community effort the FFA helped build the stage for Carter's first press conference following the successful New Hampshire primary. Advisor Harden Ragin then sat as a guest on the platform while FFA members in official dress controlled the unusually heavy traffic around the streets of Plains that night.

While Ragin admits he has not had much personal contact with the new President he says it is usual for either Billy Carter or his mother "Miss Lillian" to present the chapter Star Farmer award at their local banquet.

Although most of those asked admitted they might have had some personal reservations on the real chances of Jimmy Carter ever becoming President, Mr. Buford Reese says he knew all along. "I never had any doubts. If you had asked me a year ago I would have said the same thing. Jimmy Carter will be a good president. He will be good for agriculture—and good for this country."



The President's first contact with the White House may have been when his vo-ag class built a model of it and Mount Vernon for a 1940 Community Fair.

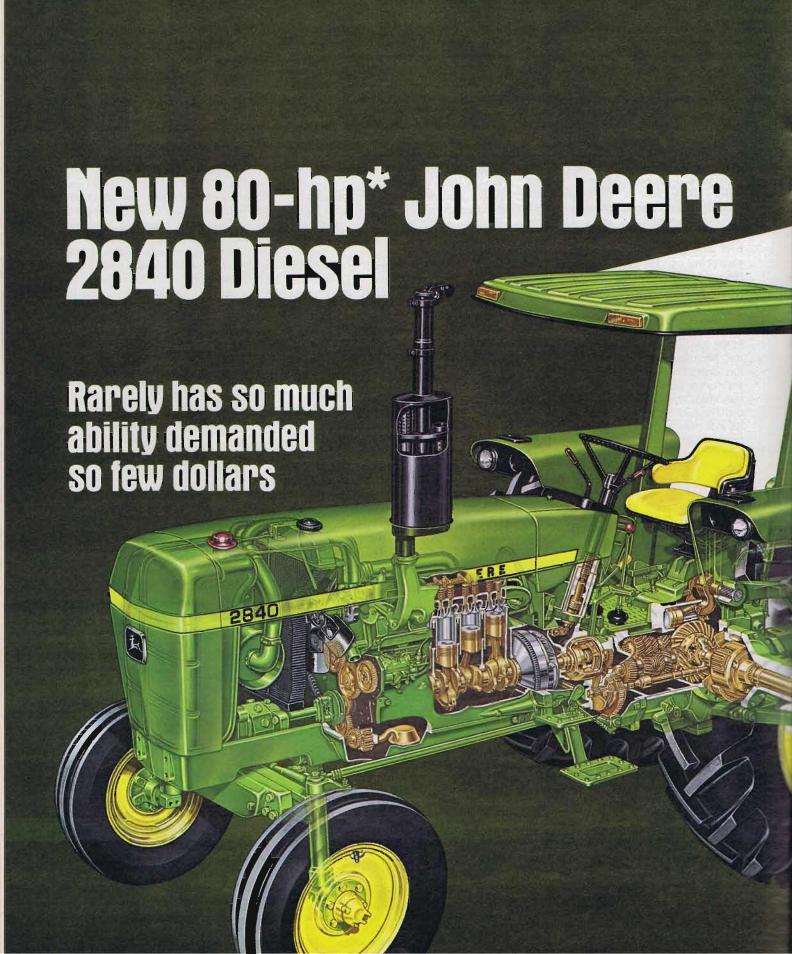
Jimmy Carter (at left) joins Richard Johnson and Ernest Harris in a brooder house building project in 1939.



President Carter (second from right) and friends enjoy their completed lawn sets, a vo-ag project in 1940.



February-March, 1977





Differential lock...hand or foot engagement...

BASE PRICE

automatic disengagement...re-

duces need for added weight... increases productivity...IN

Comfortable seat . . . fully adjustable

surrounds you with foam

centered location of

command...IN BASE PRICE

Power steer-

ing...saves

effort on every iob...can't be overrun... integral part

of tractor, not

a hang-on... IN BASE

PRICE

Hydraulic brakes ... selfadjusting and

long lived ...

individual or simultaneous operation. equalizing valve for straight-line stops...IN BASE

Easy daily servicing ... no tools required ... one-stop engine oil service...gets you on the way to the job faster ...IN BASE PRICE

PRICE

padding...high,

to weight and height.

snugly into your present and has the durability and talent to stay on and contribute to your future.

As a John Deere Tractor, the new 2840 takes over more of your effort through hydraulics. It thrives on rough going—yet provides the agile accuracy you need for precision work. It's a tractor that inspires new farming techniques one that exploits 80 horsepower to its fullest.

With all of this going for it, and with the bottom line reading "save some bucks," this new 2840 deserves your attention. It's a delight to drive, a snap to service, a tractor that earns its keep and then some. Together, your John Deere dealer and the new 2840 can provide the happy answers you want in the 80-hp tractor class. Take the measure of a new 2840 soonyou'll agree that rarely has so much value demanded so few dollars.

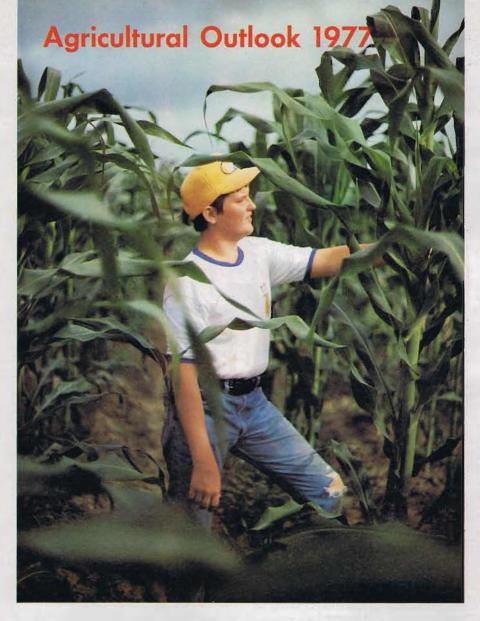
Pulling this 1450 Plow at a satisfying 5 to 51/4 mph is typical of the performance awaiting you at the wheel of a new 2840 Tractor.





The Long Green Line Leadership in product and service, today and tomorrow.

*Maximum horsepower measured at the PTO at 2500 engine rpm (factory observed)



What's Ahead For Agriculture?

Here is what the experts see when they look into their crystal ball to predict agriculture's future.

OOD grain supplies in foreign countries, a brand new federal administration and old man weather are just a few conditions affecting this year's agricultural scene.

Trying to second-guess the affect any of these things might have on the whole picture is somewhat similar to attempting to find the pasture gate at night before the bull finds you. There's a lot on the line so you've got to do your best.

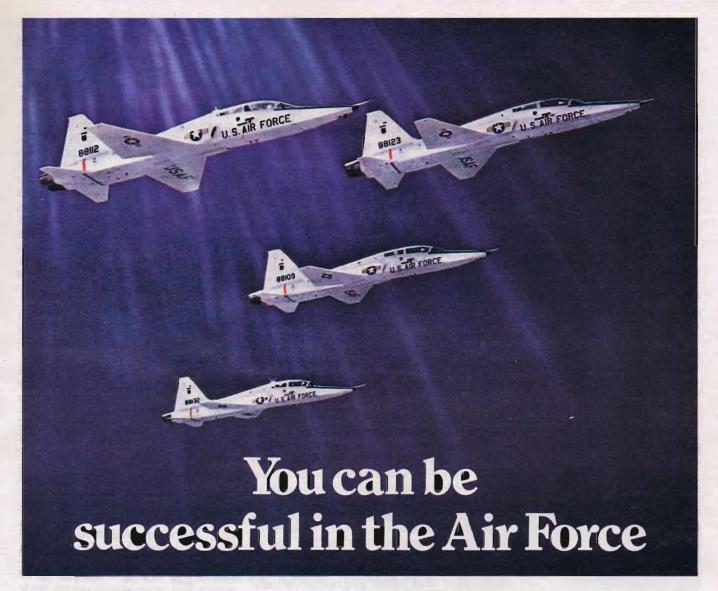
The tremendous growth in size and

capital investment in all units of the agricultural chain and rapid changes in agriculture heighten the financial need for facts and forecasts. Late each year the U.S. Department of Agriculture (USDA) holds on Outlook Conference to make some expert estimations of the year ahead. It's done to assist the nation's ag industry in planning and The National FUTURE FARMER has condensed their findings for the major commodities to assist you in planning for '77 and beyond. Here's what's cooking.

Wheat-Wheat supplies in the U.S. and abroad are great, causing prices for the 1976-77 wheat crop to probably average 25-75 cents lower per bushel than last season's average of \$3.52. Normally, these factors would mean less wheat planted, but this year growers seem to be planting heavily again, and if moisture improves for spring growers, acreages will be near the 80 million mark of 1976, which was the largest since 1949. Despite adverse weather conditions in many areas, the 1976 crop narrowly missed setting a record. Harvested yields fell only slightly from 1975 to total at 2,127 million bushels for the nation, just 7 million short of '75's record. Domestic use of wheat should climb 10-15 percent this year. The increase will come from feeding, estimated to more than double last season's 75 million bushels due to wheat's low prices with respect to other feed grains.

Feed Grains-Early indications suggest that 1977 feed grain plantings might be down about four million acres from the 129 million seeded in 1976. Domestic feeding of grains in 1977, including wheat, is expected to increase over 5 percent compared to a 10 percent increase last year. U.S. feed grain exports are expected to be about 5 percent below last year's record volume, but long-term drought in the European countries and Russia's fairly large purchases will keep exports near the 1976 record figure. Keeping these things in mind, we can estimate that corn prices for 1976-77 will average around last

(Continued on Page 28)



In more ways than one

What does success mean to you? The chance to learn and grow? A well-paying job? Serving your country? Making new friends? No matter how you define success, the Air Force

offers you many ways to achieve it.

If you're a high school graduate, we offer active duty as an Airman. It's a good chance to train and learn a valuable skill through on-the-job training or at one of our excellent Tech Schools. Or you can continue your off-duty education in a Community College of the Air Force program. You can earn a good salary, 30 days of paid vacation a year, and promotions which lead to more pay raises.

If you're college-bound, the Air Force Reserve Officers Training Corps (ROTC) offers a variety of scholarships. The ROTC scholarships cover most costs and also provide a tax-

free monthly allowance of \$100.

Also for the college-bound man or woman, we offer the Air Force Academy. It's a tough 4-year education but one of the best—with all expenses paid. And it leads to a commission as an Air Force Officer when you graduate.

You want just a part-time job? Look into the Air Force Reserve. Our part-time jobs are hard to top. We offer expert training. A monthly paycheck. Plus the opportunity for promotion. And we ask for very little of your time in return.

Decide which area of the Air Force interests you most. Then decide if you're willing to meet our high quality standards. We need young people dedicated to making an already great Air Force even better. If you are interested in receiving additional information, call toll free 800-447-4700 (in Illinois: 800-322-4400) for the location of your nearest Air Force representative or send in the attached card.

AIR FORCE - A GREAT WAY OF LIFE



Agricultural Outlook 1977

(Continued from Page 24)

year's \$2.55 a bushel mark. Sorghum will be attractive for feeding price-wise, but competition and reduction in cattle feeding may slow the demand increase. Hay supplies are down a bit and demand, due to pasture conditions, will be heavy causing prices to be strong. Protein feeding (soybean meal basis) will likely be down about 5 percent in '77.

Oilseeds, Fats and Oils-The U.S. soybean outlook for 1977 is for sharply reduced supplies, continuing strong demand, low carryover stocks next September 1, and high prices. Soybean production in 1977 will need to increase substantially to avoid continued tight supplies through the '77-'78 marketing year. Soybean acreage in '77 will likely expand though, even to possibly a tenth above '76's 50 million acres. Cottonseed supplies for this marketing year total about 13 percent more than last season, causing the price premium of cottonseed oil over soybean oil to narrow. Lard production is projected to rise around a tenth due to increased hog slaughter. This will aid demand as it is at a discount compared to other vegetable oils. Peanut consumption will increase in 1977, but supplies are high precluding price change.

Rice—Although 1976's harvested crop was 12 percent below a year's earlier record 128 million cwt., large holdover stocks more than made up for the smaller crop, making supplies larger than in 1975. This will continue to keep prices under pressure even though domestic use and exports are expected to rise moderately in 1977. It has been indicated that the buildup in world rice supplies in the past three years may reverse if early indications hold and the world crop declines for the first time since 1972. Rice growers will likely consider market conditions and cropping alternatives in planning for 1977. Strong prices of oilseed crops and cotton will assist in causing rice plantings to drop moderately.

Tobacco—Increasing tobacco supplies both in the United States and abroad is the major factor in the outlook for 1977. U.S. cigarette consumption should increase slightly from 1976 when an average of over 4,100 cigarettes per person were used. Quotas in '77 will probably hold the crop size to

no more than this season's level, but cash receipts may gain because of higher support prices. Exports of tobacco and tobacco and tobacco products were at a record high level in 1976, but large output overseas and U.S. price rises will hold down 1977 exports.

Cotton—Current prospects point to a larger cotton crop in 1977—a crop that may exceed expected consumption levels. This stock rebuilding might help do away with the current tight supply-demand balance that is preventing cotton from competing more favorably with man-made fibers for domestic markets. Moderate gains in total fiber use should be seen in 1977 as higher consumer incomes and employment spur textile sales, but high cotton prices caused by the limited raw cotton supply will influence the textile mills to cover their needs by increasing the percentage of man-made fibers in fabric blends. Indications for 1977 suggest plantings of 12-13 million acres, compared with 11.8 million last spring. This, added with better yields, would strengthen the natural fiber's position in the domestic market.

Sugar—Large world supplies are likely to maintain downward pressure on world sugar prices in the first part of 1977, but the intensity of the pressure could be reduced as intentions for the 1977 crop unfold. Current prices indicate less U.S. sugar beet acreage in '77.

The possibility of this affecting world prices is limited, however. World consumption is not expected to increase significantly and a further build-up in holdover stocks is likely. Possible U.S. governmental actions and prospects for a new International Sugar Agreement which could enhance domestic prices adds to the uncertainty for sugar in '77.

Vegetables—Despite a record large fall potato crop of about 300 million cwt., a substantial expansion of exports to drought-stricken Europe will help bolster prices to growers. Domestic demand for fresh market vegetables will expand for the first part of '77 as consumer buying does likewise. This will cause retail prices to rise slightly. However, less acreage and adverse weather in '76 caused raw tonnage of the seven major processing vegetables to be about a fifth less than a year earlier and the smallest since 1972. Carryover supplies for most major processed vegetables in 1977 will probably be large enough to cover anticipated consumption at modestly increasing prices.

Fruit and Tree Nuts-Favorable retail prices for most fresh and processed fruits are in the offing and this, combined with improving foreign and domestic economic conditions, should boost consumption of fruit and tree nuts in 1977. Smaller total supplies of apples, grapes and cherries will help to moderately elevate grower prices in 1977, in contrast to below-average prices last year. Grower returns on oranges and grapefruit will register moderately lower for the 1976-77 crop, although U.S. and foreign demand is still strong. Large harvests for both fruits are the cause of the weaker prices. Processor demand is likely to remain good, however, due to the current "bargain" aspect of citrus products. This will help to keep prices from dropping abnormally.

Timber-Activity in most of the major domestic timber products markets will continue to increase, causing demand for raw timber to be stronger. New housing construction, the market for over a third of the softwood lumber and plywood, has been rising slowly since 1975 and will continue to improve. Nonresidential construction declined somewhat in the forepart of 1976, but is expected to increase slowly in '77. Other end-use markets, including industrial use (pallets, containers and paperboard) and furniture will probably be active in 1977 as suggested by the estimates for increased housing production. Pulpwood production increased about 18 percent last year to meet a sharply increased demand. Consumption of pulp and paper was also up 18 percent and prices should remain fairly stable.

Livestock—Prospects for continued cyclical expansion in pork production and a high, but easing, output of beef dominate the livestock scene for the coming year. Higher consumer incomes and moderate prices pushed 1976's per capita red meat consumption to about 192 pounds, 11 pounds per person higher than in '75. The abundance of pork in '77 will offset small reductions in other red meat for consumers.

Dairy—After three years of virtually unchanged output, milk production posted the sharpest year-to-year gain since 1953 and totaled close to 120 billion pounds in 1976. Sales of dairy products also rose sharply and averaged almost \$1 per hundred higher than a year earlier. The new year will likely bring less favorable milk-feed price rela-

tionships, but milk output probably will continue above year-earlier levels. In the final run, totals for 1977 could show an increase of 1-2 percent as gains in output per cow more than offset moderate declines in cow numbers. With the expected heavy supplies, farm milk prices in early 1977 could average well below a year earlier, even if demand remains strong. Prices later in the year will depend on production, commercial sales and support price actions. The average for 1977 could be below 1976, the first annual decline since the 1950's.

Hogs-Pork supplies are, and will remain, up sharply from a year earlier. In light of current hog and corn prices, producers are likely curtailing breeding plans. The current December-February portion of the spring crop will finish about a tenth over a year earlier and the March-May portion should be about the same as '76. Hog prices should hold in the mid-to-upper \$30 during the first half of '77 and the corn-hog ratio will be near 13. This should lead to a small cut in fall 1977 farrowings. Retail pork prices will run about \$1.30 per pound or lower in '77 than a year earlier. That's a drop of around 5 cents. Slaughter from the fall '76 and spring '77 pig crops combined may exceed 85 million head. These crops will support a 1977 slaughter of 80-82 million head, a pork production of over 13 billion pounds (up 12-13 percent), and a per person consumption of about 64 pounds.

Cattle-Prices for all types of cattle are expected to improve moderately in 1977. Beef consumption will be down slightly next year due to the heavy slaughter in 1976. Commercial cattle slaughter was about 42.8 million head for 1976, up about 5 percent from 1975. Adding in 1.9 billion pounds of imports makes for a 1976 per capita beef consumption of over 128 pounds, up 8 pounds from a year earlier. The forecast for 1977 points to a total cattle slaughter of 44.5-45 million head, down 8 percent from 1976. Usual slaughter weights would suggest slightly over 24 billion pounds of beef with a per capita supply of 120-122 pounds. Early figures point to a drop in the nation's cow inventory, which will in turn affect the calf crop and the total end-of-the-year inventory next year would be below this year's by about 2-4 million head.

Poultry and Eggs-Sharp gains in red meat output this year have depressed broiler and turkey prices and will continue to do so in 1977. Burdensome poultry production in itself will probably add to a price-cost squeeze. Broilers will continue to face increased competition from pork in 1977 and may average 2-4 cents below the 42 cents for a year earlier. Production will exceed year earlier levels adding to the relationship. Turkey prices are also likely to be weak during the first half of 1977, falling to the mid-40 cents per pound range. Egg production likely will increase and average 1-2 percent higher during the first half of 1977. Second half 1977 production will largely depend on producers' profit margins and prospects for this year's feed-grain

Summary—Universally it looks like the prospects for continued large supplies of crops and near record livestock production in 1977 will face an expanding domestic market and another year of near record exports. These conditions will help to bolster prices and farm incomes in 1977, despite the large sup-

Boiling all of it down to those two sentences can be a fairly risky business, but then risk is something that's not new to the farming industry. With this outlook perhaps you will be able to sidestep low prices and minimize your risks.

The 40 grain big game type bullet designed for your small game rim fire rifle.

For small game hunting, our new 22 Dynapoint cartridge gives you a 40 grain long rifle bullet that combines accuracy with the most effective mushrooming you've ever known.

Use it for hunting rabbits, squirrels, varmints and other small game, and you'll get unmatched performance.

In addition to superior

mushrooming the Dynapoint power package gives you all the high-quality performance of our other Super-X rim fire cartridges.

When you want to know how good you can be, use any of the outstanding Winchester and Western 22 Rim Fire Cartridges ... Super-X, T22, and Super-X® Magnum.



29

Rides so smooth you almost forget you're working with 130 hp.

Power never came with so much comfort.

Here is what 130 pto horsepower looks like in the new International Series 86 Pro-Ag line.

This 1086 is the most popular size tractor IH® makes. And no wonder!

It's just the right size for the big jobs on most farms, and behind those 130 horses there's the famous IH high-

torque lugging power for when the going gets tough. But the big news is that this new 1086 makes your work a lot easier.

You can see from the diagram that the new IH Control Center has a midmount design. So now you sit 11/2 feet further forward—away from the bumps and jolts of the rear axlefor a far smoother ride.

And it's quiet. Even at full load and full throttle, this 1086 is almost as quiet as your car.

The gently curved, tinted windshield gives a clear view up front, and the same's true of the hitch and implement out back.



Controls are now in consoles at your fingertips. The new springsuspended seat gives you a "floating" ride. And the improved climate control will keep you comfortable in any weather—even has directional louvers to defog the side windows.

There are up to 14 separate monitoring devices, both gauges and

and maintenance needs-and that even includes coolant and brake wear indicators.

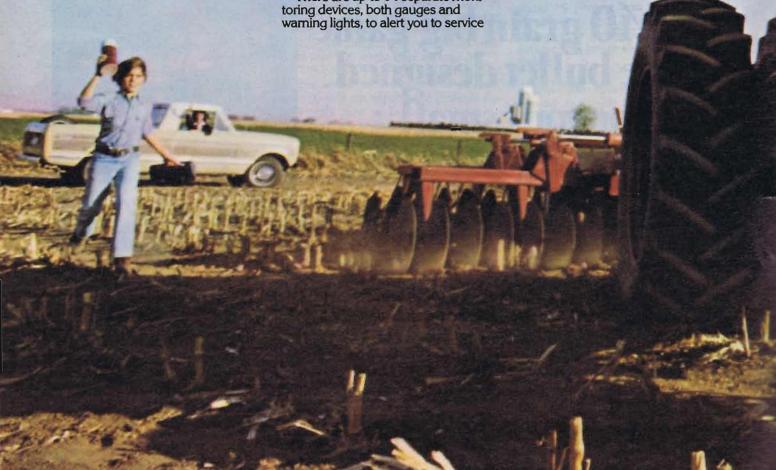
For easier servicing, there are plugin instruments, maintenance free batteries, outside-the cab electrical disconnects, even a self-cleaning air conditioning filter.

More work from your tractor and less work for you—that's what the six new models in the International Series 86 Pro-Ag line are all about. Power from 85 to 160 pto hp. Look 'em over soon at your IH Dealer and we think you'll agree:

Power never came with so much comfort.

*Manufacturer's estimate, max. obs. pto hp.





The new International 1086.





Bob Greisen bought this new greenhouse and replaced the propagating beds.

Robert Raises Rhododendrons

B OB GREISEN specializes in rhododendrons. It even says so on his Greisen Nursery stationery.

As an eighth grader Bob moved with his family of ten to Scappoose, Oregon. As a sophomore in high school he enrolled in vo-ag and FFA. His horticulture career was off and running.

That year he put up a 5 foot by 15 foot greenhouse and propagated 300

hardwood cuttings. In Bob's junior year he propagated 200 rhododendrons and 500 hardwood cuttings. "In the spring I bought shrubs at a wholesale nursery to sell retail. I also started a landscaping business in which I had two boys to work for me. After I started landscaping I applied for a loan for a tractor so I could do the landscape work more effectively and could do custom work."

Then a big break opened up for Bob. "In September I found out about a nursery that was for sale. I had been buying shrubs from there during the summer. My parents, Mr. and Mrs. Edward Greisen, obtained a loan from the Federal Credit Union and I am paying them back for the loan."

Today Bob is coordinating operation of his two large greenhouses, construction of a new storage complex and he has recently purchased more land for expansion. He is building a "high rise" second-story office on top of his storage shed that will allow him to look out over much of his nursery operation.

A member of the American Rhododendron Society and Oregon Nurseryman Association, Bob has attended a short course on ornamentals and was enrolled at Portland Community College.

Bob was named national winner in the FFA's Ornamental Horticulture Proficiency award program at the National Convention in Kansas City this year. The award is sponsored by the National FFA Foundation.

Advisor William Hester attests to Bob's hard work and desire to expand. "He built one additional greenhouse since being there and just recently purchased 7½ acres adjoining the property."

Bob had typical leadership experiences as president and vice president of his Scappoose FFA Chapter. Plus he served on state horticulture and forestry teams for his chapter.

But rhododendrons are his specialty now and he prides himself in quality plants. "I plan to continue the operation of my nursery and continue my expansion until I am to full capacity. Then I plan to start raising other types of ornamental plants."

Bob used this existing shed for storage of his supplies, fertilizers and tools for the nursery and landscaping.



This will be his new "high rise" office. From it he can see the lath house and the field plots of rhododendrons.



32

The National FUTURE FARMER



Last fall farmers again harvested more Pioneer® corn than any other brand. Why Pioneer?

Because year after year farmers earn more net income with Pioneer hybrids.

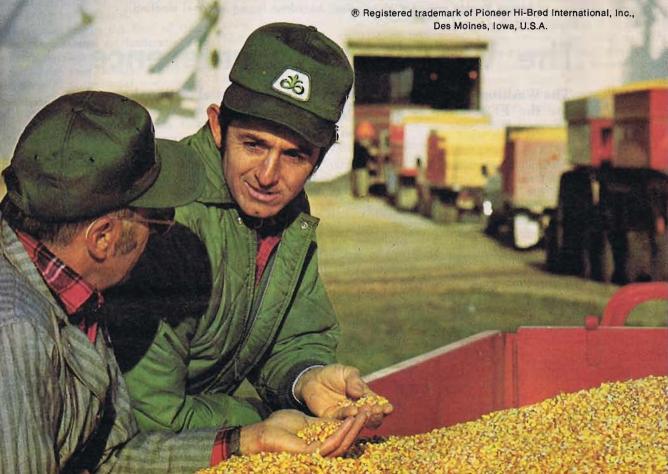
It takes lots of research to consistently develop the most profitable hybrids. And Pioneer does more corn research than anyone else.

So take a tip from your neighbors and put Pioneer research to work for you. You'll tip the scales with drier corn...and lots more of it.

The more you plant...the more you make.

Performance of seeds or the crop produced therefrom may be adversely affected by factors beyond our control including environmental conditions, insect and diseases. The limitation of warranty and remedy attached to each bag of Pioneer brand seed is part of the terms and conditions of the sale thereof.







Mount Vernon provides an excellent backdrop for an informal meeting.

Photos by Author

The Washington Conference

The Washington Conferences have become an annual National event for the FFA. Here is a description of what they are really like.

By Tom Waldinger

DURING the Bicentennial summer, 972 FFA members from throughout the country attended the Washington Conference Program during its eight separate weeks of leadership sessions. One of those was Roger Roberson, chapter treasurer of the Hamilton, New

York, FFA Chapter. He, like the hundreds of other conference participants, gained practical knowledge and ideas for chapter involvement in FFA activities

When Roger left Hamilton, he was uncertain about the conference he was

about to attend. A friend in the chapter had been to the five-day conference the previous year and had told Roger about some of the activities. So, he expected to "have some fun and meet some interesting people." When the week was over, however, Roger said that he

The workshops and discussion groups are major activities.



Sharing enthusiasm with members who are now close friends.



"found that there was something more—much more than just fun. It helped me to take a different look at life."

Throughout the week, Roger and the other 130 FFA members attending during the week of August 2-6, found a wide variety of activities on the conference program. Of course, there were visits to great monuments—but they were only a small part of Roger's "week of opportunity."

On Monday, the first of the five-day, five-star program, Roger registered at noon, filled out a news release, posed for a picture with National Vice President Leo Anderson and then attended the opening session. He was welcomed to Washington by the National FFA Advisor and the National Officer. He received an outline of the week's activities from the conference staff and he took part in a get-acquainted session which allowed him and others to "loosen-up" and meet other people from throughout the United States. Finally, the first session had ended with a vespers-a sharing of thoughts and a challenge for the week to come.

Tuesday brought a rousing "eye opener" and hearty breakfast. The second star was added and the goal for the day was announced—to develop a sense of personal pride in order to achieve your leadership potential.

The group began the first of three days of workshops on leadership and personal development designed to increase their own ability as leaders, strengthen their personal communications and better understand social and human relations. During these sessions, Roger learned everything from table manners and talking properly on the telephone, to using a group in making decision. The day also brought a trip to Fort Hunt Park for a picnic lunch and later a visit to the National FFA Center. Roger and his fellow participants were fortunate to be the first FFA members to make use of the new FFA conference room, followed by a tour of the Supply Service and FFA Archives.

Mount Vernon plantation was the next stop—a tour of Washington's home, work area and tomb. After a warm afternoon, the group was ready for a dip in the motel pool.

Following dinner, a news media

workshop was held and a session on the "Profile of a Leader." During this part of the program, Roger realized his leadership potential. "I began to evaluate my abilities and decided to set personal goals," he said. In a film, he learned from Bob Richards that "there's genius in the average man."

Wednesday's program focused on personal motivation "to contribute to the effectiveness of your chapter program." Following the second session of workshop, Chapter Impact—Phase I was held—a sharing of problems in local chapters. Through discussion and "buzz-groups," Roger and other members produced a list of solutions to every chapter problem presented.

Wednesday evening began with a patriotic program on the steps of the Jefferson Memorial and a night tour of the nation's capital. At day's end, a "reflection" was held at the Lincoln Memorial, looking toward the illuminated Washington Monument and Capitol Building. Here, Roger sat in a thoughtful mood, looking on what he had gained at the conference so far.

"I remembered the historic places we had visited, like Washington's home and other monuments. I felt very small among these memorials to such great people, because the things they accomplished were more than I could conceive. But suddenly I remembered the film we had seen the night before. I realized that Lincoln and Washington were average men just like me. It's just that they used their personal pride and selfmotivation to do great things. I made up my mind to take these things home to my chapter and put them to good use."

On Thursday, Roger's attention was on the goal for the day—to develop an appreciation for the American democratic society by realizing your citizenship responsibility. Immediately after breakfast, Roger got his first day-time look at the Washington Monument—from the outside—and from the top. From there, a trip to Capitol Hill was on the morning agenda. During the morning, Roger and other group participants were on their own to visit the offices of their Congressmen and two U.S. Senators.

At noon, the FFA members regrouped for a Capitol Hill luncheon and the opportunity to hear a Congressman answer their questions. From the luncheon, there were afternoon visits to the Iwo Jima Memorial and Arlington National Cemetery.

In the evening, Chapter Impact— Phase II got underway with "Thursday Night at the Movies"—a chance to see FFA slide presentations and learn more about activities and programs in the organization. The topics included everything from Work Experience Abroad to Food For America to FFA Alumni. The group also had the chance to meet and ask questions of several people on the National FFA Staff.

To close this fourth day, students shared their thoughts in the "day's reflection." Roger was impressed by the words of other conference participants—people who were now his close friends.

Friday—the final star of the program—was geared toward combining the efforts of the previous four days and attempting to instill a personal outlook in each member which would help mold their future. The final sessions of leadership and personal development were held, followed by an afternoon of open visits in Washington.

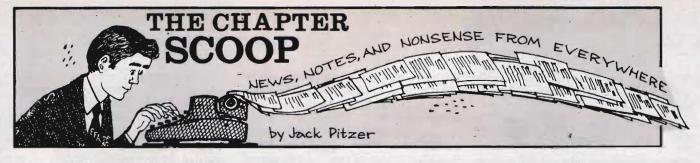
The conference banquet, chaired by FFA members, topped off their week. Leo Anderson gave the banquet address, telling students, "you are the difference." A slide presentation of the week's activities was viewed by everyone, conference staff members were recognized, certificates were presented to participants and everyone said their last "good-by."

What did FFA members gain through the conference? According to Roger, "Through this program, I learned to work with others—interacting, exchanging ideas and solving each other's problems. I gained a kind of knowledge that I will never forget."

The Washington Conference Program—five short days which offer so many challenges to so many FFA members. Their goals and ambitions are to take the good news of the FFA and leadership potential to their home chapters. They come to Washington as ambassadors of their chapter—they return home as ambassadors of the FFA. Nearly 1,000 members will attend next summer—will you be one of them?

Roger Roberson described the Washington Conference best when he said, "As soon as the last session ended, I wanted to go home right away and tell my chapter what I had learned. It was definitely the most meaningful week of my life—it was my week of opportunity."

The author, Tom Waldinger, was a member of the Washington Conference staff in 1976. He is now completing work on his degree in communications at the University of Illinois.



Four officers of *Odebolt-Arthur*, Iowa, rode in the back of the vo-ag pickup and tossed out 25 pounds of candy to kids at the fair parade.

Heard that Marana, Arizona, collected food for families in their area.

Wow! Harrison County, Kentucky, serves a steak dinner to the 500 folks who attend their annual banquet.

Float entered by Holdenville, Oklahoma, in annual county peanut festival saluted George Washington Carver. They took \$100 first prize.

Article in Oshkosh West, Wisconsin, Chapter newsletter describing how not to get "ripped off" buying firewood.

David Hall, Bogalusa, Louisiana, prexy wrote about the fun members had taking little kids through the FFA sponsored haunted house in October.

Lynn Vacca, reporter for Ventura-Buena, California, FFA was elected head of county junior fair board.

Hagerman, New Mexico, FFA hosted a welcoming reception for their new school superintendent and his wife.



A Labor Day Dinosaur Derby is sponsored by Glen Rose, Texas, FFA. Really is races for quarter horses, Shetlands and mules at Dinosaur Downs.

N.N.N

Got word of some new blue and white FFA hats with chapter name on the front in gold. Being worn by *Albin-Pine Bluffs*, Wyoming, members. Wonder where they got 'em?

The 51 members of Wallowa, Oregon, passed a \$5,103.83 '76-'77 budget.

There are five new flag poles at the fairgrounds courtesy of *Manchester*, Iowa, FFA. One is to fly FFA flag.

A new award in *Postville*, Iowa, Chapter—five-star member award. Presented to anyone capable in five areas.

Lewistown, Montana. "Our spice sale is underway. We're busy wrapping orders. Sales so far reached \$4,000. Our goal is \$5,000."

The poinsettia sale for *Lebanon*, Connecticut, Chapter was so successful they had sold all 38 plants for \$5 each before the sale began.

Advisor Michels of Miles City, Montana, is giving dance lessons every Thursday evening—standards like polka, waltz, fox trot and jitterbug.

One goal of *McMinnville*, Oregon, this year was to "make chapter meetings more interesting."



Modesto, California, chapter has a watermelon bust before school starts to recruit new members.

Officers of Lisbon, North Dakota, helped in a local Thanksgiving church service by carrying a basket of vegetables to the altar.

Vicky Hancock wrote about Houston, Missouri's successful citrus sale.

Over 300 political campaign posters were cleaned up by *Lindsay*, Oklahoma, members after the November election.

N.N.N

Of the seven teams representing Delaware at the National Convention this year, six were from the Lake Forest.

First place FFA exhibit at Alabama state fair was Rogersville.

"Santa's Hotline" is operated by Sandpoint, Idaho, FFA. "Santa", one of his "elves" and a "North Pole telephone operator" record a special message for the kids who call Santa on a special telephone listing.

Phil Reed, reporter of Southeast Chapter, Washington, Iowa, was invited to be parliamentarian at the county Democratic convention. He wore his jacket and several times had to help straighten out "parly" procedures.

An alumni affiliate was organized to support *Broken Arrow*, Oklahoma, Chapter with 92 new alumni members.

The aluminum cans collected by Kimball, Nebraska, members went to help pay for the heart machine in the county hospital.

Members of Southington, Connecticut, sold sweet corn off of an acre of land behind the school's soccer field.

Jim Childs sent his first edition of a state FFA newsletter for Connecticut.

Last year the guest speaker at *Tulpe-hocken*, Pennsylvania, Chapter was flown in by state police helicopter.

Oroville, California, launched an early payment-of-dues incentive—free pizza to all who paid by September meeting. Results were good—a majority paid. And some new members joined.

Lake View-Auburn, Iowa, members who attended Farmfest were guests of New Ulm, Minnesota, Chapter.

Mount Vernon, Texas, members are earning money for the chapter banquet by building and painting round bale feeders for local dairymen.

Fayetteville, Arkansas, sponsored a turkey shoot for area FFA'ers.



This summer Mount Pulaski, Illinois, took a canoe trip down the creek for two days and half a night. It rained the other half.

Everyone at Alexandria, Alabama, Chapter banquet enjoyed hearing past National Public Speaking winner Eddie Blizzard.

Have you got the Scoop on your chapter yet? Be sure somebody sends it in to the editor of this column.

Also what did your chapter do that was different to celebrate FFA WEEK? Every chapter reporter send us a story.

Since time began, the farmer has dreamed of being independent of weather and outside labor. Now, he's one step closer to his goal with the help of the big-powered 4-wheel-drive tractor.

Case pioneered the 4-wheel-drive agricultural tractor back in 1964. Today there are three sizes of Case 4-wheel-drives including the new 300 engine HP 2870 with 12-speed range power shift and selective 4-way steering.

Is the 4-wheel-drive for everyone? Hardly. Case also makes eleven 2-wheel-drive power sizes for the farmer whose operating conditions and acreage do not require 4-wheel-drive capabilities.

If you would like to know more about 4-wheel-drives...or tractor power of any size...write JI Case Company, Racine Wisconsin 53404.

JI Case A Tenneco Company



THERE A 4-WHEEL-DRIVE IN YOUR FUTURE?



*Manufacturer's rating. All other ratings are official test.



Get Ready Now For Busy Season

You can use off-season maintenance to avoid the busy-season downtime which may prove to be costly.

DURING the busy season ahead, any breakdown—or even poor performance—of your machinery can be very costly in terms of lost productivity. However, by using time available during the less busy winter months to check over your tractor and other machinery, you can save many valuable hours when they count most.

Often, your time may be the only investment required. And, any repair parts that are necessary cost no more now than they will in a few weeks. Further, if needed parts are currently out-of-stock, the delay in obtaining them is far less critical now than when you are in the midst of field work.

Since the tractor is usually the most universally used piece of equipment, it probably deserves priority attention. However, don't overlook implements used with the tractor, as well as self-propelled machines such as swathers and combines. For example, many of the items that should be checked out on tractor engines are equally applicable to the engines on self-propelled machines.

Several key items that should be checked are listed by machinery specialists at International Harvester. The exact procedure varies among makes and models, as well as with types of engines. Thus, you'll need to consult your operator's manual for specific instructions, but these general guidelines apply.

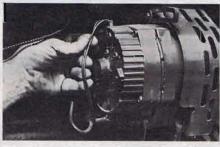
Ignition System. On gasoline or LP-gas engines, it's essential that the ignito the end of last season's use, it's a good



Set ignition system as recommended.

tion system be in top condition, if the engine is to operate properly. Thus, unless the spark plugs, distributor points, and condenser were replaced just prior idea to start by replacing all of these items. Whether last season's parts are being used or new ones installed, sparkplug gap, distributor gap or dwell, and spark timing should all be set to the recommended values.

In addition, both the low-voltage and the high-voltage wiring should be inspected. If the insulation on any of these wires shows any signs of cracking or



Check wiring for signs of cracking.

splitting, the wires should be replaced.

Fuel. On gasoline and LP-gas engines, the carburetor should be adjusted to the recommended settings. In addition, the sediment bulb, fuel filter, or other device for removing contamination from the incoming fuel supply should be serviced.

On diesel engines, check your operator's manual for recommendations on servicing the injectors. In some instances, you can—with appropriate care—remove the injectors yourself and take them to your dealer's service department for any needed attention. In other instances, the operator's manual recommends that you do not remove the injectors, but leave this operation to your dealer's service department.

Machinery specialists caution that in all cases however, disassembly and service of the injectors themselves is definitely a task for a skilled service man. Any attempt to disassemble and service these injectors yourself will damage the complex, close fitting internal parts.

However, you can, and should, service the filtration portion of the diesel fuel system. Because clean fuel is important for proper operation of the injectors, most diesel engines have at least two, and sometimes three, fuel filters. Check your manual for details on cleaning and servicing each of these. If any of them use a throw-away element,

it's a good idea to renew the element at this time.

Air Cleaner. All engines—whether spark-ignition or diesel—require large amounts of air for proper combustion of the fuel. To prevent undue wear on the



Simply replace dry-type air cleaner.

vital working parts of the engine, it's important that this air supply to the engine be as clean as possible.

Most late model engines are equipped with a dry-type air cleaner, while many earlier models use an oil-bath type air cleaner.

In some cases, the dry-type air cleaner is serviced by simply replacing the filter element. In other instances, the operator's manual will give details on cleaning the filter element to extend its life. Even here, however, the elements must be replaced periodically.

Oil-bath filters should be serviced by removing and cleaning the oil cup. Any caked dirt in the bottom should be cleaned out, and the cup washed with kerosene or solvent. Then refill the cup with the same viscosity oil as used in the engine. Be careful not to overfill the cup, or oil may be sucked into the carburetor. Use only new engine oil, not oil that has been drained from the crankcase.

Both dry-type and oil-bath cleaners are generally protected by a pre-cleaner or screen over the intake. Service this precleaner by emptying the container of any accumulated contaminants and by cleaning the intake screen.

Crankcase. Drain the existing oil and replace with the recommended viscosity for the season. Check your operator's manual for recommended viscosity and service classification. In most cases, diesel engines require a higher quality oil than do gasoline engines because of the

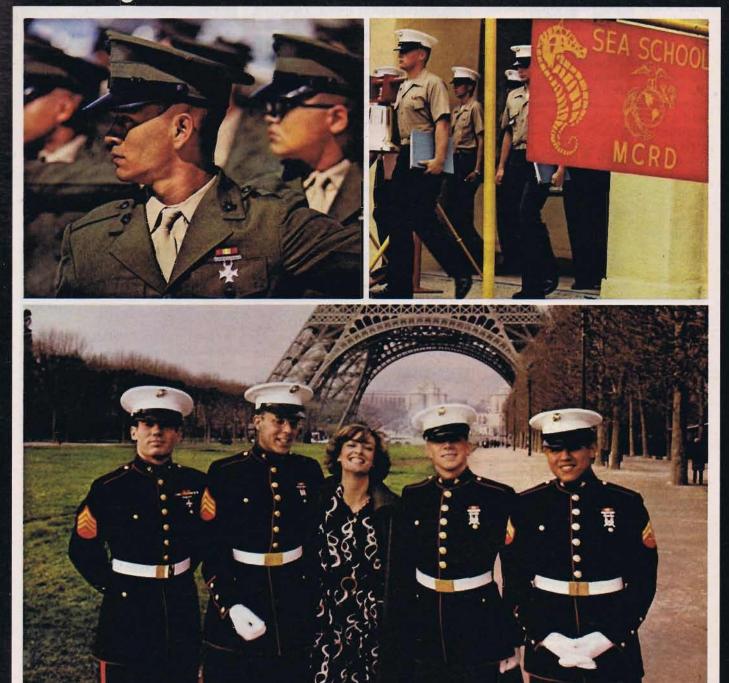
(Continued on Page 44)



Refill crankcase with recommended oil.

On your mark.

Get set.



On your mark: You begin by learning to be a Marine.
One of a proud few. Get set: For duty around the world. It could start at a Marine school, training for service aboard key ships of the Fleet. Or, maybe a school that trains Marines to guard America's embassies overseas. Go: Places like London, Tokyo, Hawaii and

Paris are waiting. Of course, you can travel in any one of our country's services. But, if you want to see the world, and have the world see you as a United States Marine...there's only one way to go: Our way. Mail the card, or call 800-423-2600, toll free. In California, 800-252-0241.

The Few. The Proud. The Marines.

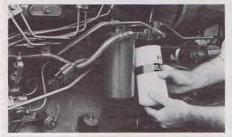
Get Ready

(Continued from Page 40)

more severe service conditions. Thus, oil that is adequate for a gasoline engine may not provide adequate protection for your diesel engine.

The engine should be up to normal operating temperature prior to draining the oil. This helps ensure that the contaminants will be suspended in the oil and drained from the engine.

Before refilling the crankcase with new oil, be sure to service the oil filter, either by cleaning it or by installation of



Most diesels have two or three filters.

a new filter element as required.

Transmission. The lubricant level should be checked. If your manual recommends a heavier lubricant for summer use, change it now. Otherwise, add lubricant if required to bring it up to proper level.

Hydraulic System. Most hydraulic systems should be drained and refilled with new fluid at least once, and sometimes twice, a year. This procedure gets rid of dirt particles in the fluid and the water formed by condensation. Be sure to refill with the recommended fluid before starting the engine. Otherwise serious damage to the hydraulic pump may result.

Many tractors use a common fluid in the transmission and the hydraulic system. They emphasize that in these tractors, it's especially important that you use only the fluid recommended in your operator's manual. The use of any other fluids can lead to severe damage of the hydraulic-system components, the transmission components, or even both systems.

Cooling System. To adequately carry away the waste heat developed by the engine, air must pass freely through the radiator core. To ensure this, remove the grille, and any other screen, and blow out dust, dirt, and trash from the back side. For this, you can use an air gun, water hose, or even a hand tire pump. Be sure to wear safety glasses or shield during this operation.

With the engine thoroughly warmed to operating temperature, check for any signs of leaks at the radiator top tank, bottom tank, or in the core. Also, check the water-pump shaft for signs of leakage around the seals. Repair of any of

these leaks is a job for your dealer's service man or a radiator repair shop.

Even if no repair service is needed on your radiator, it's a good idea to drain and flush the cooling system. Then refill the system to the recommended level with the solution recommended by your operator's manual.

It's also a good idea to check the fan belt for condition and tension. Look at the underside. Breaks generally start here. A loose belt will slip and prevent the cooling system from doing its job properly.

Electrical Systems. Check to make sure that the liquid in the battery is at the proper level. If the level is low, add distilled water. Clean up any corrosion on the terminals. Make sure that the terminal clamps are tight, and coat lightly with grease. Be sure that the hold-down clamps are in place. Operation over rough ground can shake the battery enough to break the case, if it is not adequately secured. Corroded terminals and cables can be cleaned with a baking soda solution. However, take care so that this solution does not get into the battery.

Check the general condition of the



Check battery and clean terminals.

wiring on the tractors and self-propelled machines. Be especially alert for corroded connections between wires and terminals of the various electrical devices. In most cases, these terminals can be disconnected and cleaned to help ensure proper performance. But, before disconnecting any terminals, disconnect the negative or "hot" terminal of the battery from its cable, to avoid the possibility of shorting any wires or terminal during the cleaning process.

Pay particular attention to the wiring and mounting of the lights. Otherwise, you may not be aware that they are not working properly until you have dire need for them.

If the alternator or generator is powered by a separate belt, check it for tension and condition.

Clutch and Brakes. Adjust the free play of the foot clutch or the overcenter action of the hand clutch. Tighten the brakes, if necessary, and adjust so that both pedals take up evenly. This will help avoid dangerous side swerves when operating in road gear.

Steering Gear. On tractors and selfpropelled machines equipped with manual or power-assist type power steering,



Check belt tension and condition.

check the level of lubricant in the steering-gear case. If needed, add lubricant to bring it up to the recommended level. In most instances, it is not necessary to drain the existing lubricant.

This is also a good time to check the condition of the front-wheel bearings or the rear-wheel bearings on self-propelled swathers and combines. If they show signs of wear, they should be replaced. If they appear to be in good condition, they can be relubricated and reinstalled.

On tractors with wide front ends, check toe-in of the front wheels. Although toe-in may not have as much effect on tractor handling as it does on automobile steering, correct toe-in is important on tractors to obtain proper steering and maximum front-tire life.

Tires and Ballast. Check for any signs of breaks or cuts in the tire casings, and have them repaired now. Check the wheel rims for damage caused by driving over sharp objects. If bent, pound out with a sledge hammer. This will avoid blow outs caused by a pinched tube or, in the case of tubeless tires, loss of air caused by leaks around the rim.

Also check the tires for proper inflation pressure.

If the first use of the tractor is to be for plowing or other heavy drawbar operation, it's also a good idea to check the ballast. For example, do the tires have the required amount of liquid ballast? If you are using wheel weights, are they in place and properly secured? If not, the deficiencies should be corrected at this time.

Implement Check. Although many different implements will be used in the coming months, machinery specialists point out that many of the requirements are common to all of them. First, check them over for any obviously broken or missing parts. You may have "gotten by" and finished out the season last year, but it's foolish to start off a new season on such a basis.

Next, check for wearing parts which may need replacement, such as plow points, disk harrow blades, mower knife sections, and hay rake tangs. The implement may work without new ones, but won't work as well.

Lubrication should not be overlooked. (Continued on Page 59)

KRAUSE Introduces 9 Great New **Tillage Tools.**



Look for this SIGN OF PROGRESS at your Krause Dealer. It identifies new Krause tillage tools.



(2200 Series) Rigid Tandem Disc Sizes 12' to 18', 20" or 22" disc



(1740 Series) Rigid Tandem Disc Sizes 9' to 20', 24" or 26" disc blades



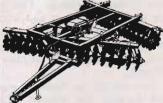
(1950 Series) Flex-Wing Tandem Disc Sizes 25' to 31', 20" or 22" disc



(2500 Series) Lift-Up Chisel Plow Rigid or Flex-Wing, Sizes 8' to 22'



(1800 Series) Flex-Wing Chisel Plow Sizes 28' to 48', 3 or 5 sections



(2000 Series) Offset Disc Harrow Sizes 12' to 20', Big 28" disc

Krause Plow Corporation

305 South Monroe Hutchinson, Kansas 67501 Please send me your new 1977 Full Line Product Catalog

State Phone



Giant 45' Flex-Wing **Tandem Disc Harrow** (2100 Series) (Sizes 35' to 45' - Folded width 16' to 20')

- Disc blades: 22"
- Spacing: 8" or 91/8"
- Staggered-overlapping front gangs
- Hydraulic self-leveling
- Wing spin gangs
- Rock-Flex models
- 3 Section flexibility
- Hydraulic wing fold

Heavy Duty Flex-Wing Tandem Disc Harrow (2400 Series) (Sizes 19'

to 27'-Folded width 14') ■ 24" disc blades on 9" front, 10" rear spacing

- 26" disc blades in 10" front, 11" rear spacing
- Staggered-overlapping front gangs
- Hydraulic self-leveling
- Rock-Flex models
- Over-center wing fold
- 3 Section flexibility





Extra Strong Flex-Wing Chisel Plow (2300 Series) (Sizes 22' to 32' - Folded width 161/2')

- 3 Section flexibility
- Big 4" x 4" frame
- Over-center hydraulic wing fold
- 4 or 6 Flotation tires
- 4 bar shank spacing
- 3 wing hinges
- A-Frame tongue



By Harvey Spivak

NYONE who can grow white A blackberries must have a special knack with plants. The man who can make a plum smell like a pineapple and taste like a banana might even be farming with magic.

Luther Burbank grew plants like that, sometimes just for fun. That's why they called him "The Wizard." People said he could "do anything"

with plants.

By the time he died in 1926, 50 years ago, Burbank had left us more than 800 new plant varieties: big potatoes, fast-growing corn, thin-shelled walnuts, and many others.

Today's plant breeders, who are hurrying to keep up with the world's appetite, would be happy to find some new Luther Burbanks. They'd like to see some young men and women who have the plant-growing talent that Burbank had. What kind of person are they looking for? What sort of man was The Wizard?

For one thing, Burbank was a firstrate farmer. No amount of technical knowledge is useful without a talent for getting the most out of the plants on hand.

Burbank knew how. One day in March, a California banker named Warren Dutton went to Burbank's home. I want to get into the prunegrowing business, said Dutton. And I want to buy 20,000 trees from you. Do you think you can deliver them to me by December?

Dutton had already asked other nurserymen to do the job for him. They all refused. This was in the days be-

fore June budding, now a common method, was used to speed up the process of grafting and growing nurs-

It's impossible, said the nurserymen. First we have to sprout saplings from seed, to use as root stock. In August we'll be able to graft the prune buds onto the saplings. But the buds won't sprout until the following spring, well past your December deadline.

Dutton was asking them to do what was then an 18-month job in only eight months. Nevertheless, Burbank accepted the challenge. He immediately sprouted almond seeds for root stock.

His big problem came four months later, in June. Burbank wanted to graft the buds and force them to sprout right away. This can be done by cutting off the tops and leaves of the root stock. The root stock, in order to survive, will then put all its strength into growing the grafted bud.

But in June his almond saplings were still so young and tiny that Burbank knew cutting their tops would kill them. Yet he had to graft the buds right away in order to meet the December deadline.

His solution to the problem could only have been accomplished by someone who was a natural farmer, with great sensitivity for plants. He cut the almond tops halfway. He cut them just enough to stop their growth and force the buds to sprout, but not so much that the entire seedling would be killed. Burbank made this precise cut on all 20,000 trees, and met the deadline.

However, being a successful farmer wasn't the only thing that made him an

outstanding plant breeder. Another talent that all breeders need is the ability to observe, to see little, differences among individual plants that most people wouldn't notice.

To Dr. Robert L. Plaisted, chairman of Cornell University's Department of Plant Breeding, this is an essential trait. "A plant breeder needs the ability to observe differences in plants," he says. "And they have to be able to judge the merits of the differences."

Burbank was famous for having this talent. Donald Martin, a county agent who lived near Burbank, said, "He seemed to have some kind of an instinct that told him if a tiny plant would grow up to bear the kind of fruit or flowers he wanted-even when it was only a few inches high."

His observant eyes were always at work. Among the yellow California poppies that grew by the millions near his home in Santa Rosa, he found a single flower with one red streak on one petal. He took the seeds from that plant and eventually developed an allred California poppy. It was like coming up with a blue tomato, and it helped establish Burbank's reputation as the man who could "do anything" with plants.

According to Dr. Plaisted, who has' spent years working on new breeds of potatoes, there is a third characteristic that is needed by every plant breeder. Patience.

Some people say that Burbank didn't need patience. He had luck. After all, he came up with the famous Burbank potato after only one experiment. He found a potato seed ball which contained 23 seeds. One of those seeds produced a fabulous plant which led to the Russet Burbank potato, the variety which is used for a third of today's American potato crop.

That was lucky. But Burbank worked for 51 years after he found that seed ball, and never again did he have such luck. He developed the varieties he wanted only after examining many thousands of plants.

At one time he was growing 300,000 hybrid plum trees. Meanwhile, he kept an eye on 10,000 apples, 10,000 hybrid seedling potatoes, and thousands of other vegetables, grains, and flowers. He grew half a million strawberry plants before he found a single plant worth keeping for later use.

The story is the same for modern plant breeders. Dr. Plaisted points out that researchers look at "a million potato seedlings before they find one that will start a good new variety." The progress made with hybrid corn in the past 20 years has come because many researchers patiently examined numer-

ous individual plants.

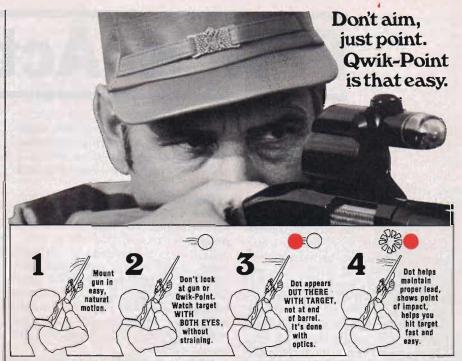
Although Burbank and successful present-day breeders have much in common, they differ in one important way. Burbank worked alone. He must have been a wizard just to keep track of his dozens of experiments and hundreds of thousands of plants without the help of other people or even a neat set of records.

But the modern breeder cannot work this way, even if he wants to. The ability to work as a member of a team is much more important than it was 50 years ago. We want the new varieties to yield well, grow with minimum amounts of fertilizers, resist insects and diseases, and have stalks that are strong, but not too big. So botanists must work along with plant pathologists, entomologists and others.

It's a lot of work. It calls for a lot of people. Plant breeders are needed at agricultural colleges, commercial seed companies and the USDA. Also, there is plenty of activity in organizations which are producing new grains and vegetables for the developing countries.

One Luther Burbank wasn't enough. We're looking for more.





No need to line up eye, bead, and target. See that buck? Just swing your gun to your cheek. You see a bright dot, optically projected right on the target. You see it all in perfect focus — no magnification, unlimited field of view. Just hold your lead and pull the trigger.

Fast, and accurate. Whether you're using a shotgun, a centerfire rifle, or a 22.

Model S-1 on your shotgun offers a real shortcut to be coming an accomplished wingshot. Model S-1100 mounts

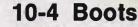
easily on Remington 1100 and 870 shotguns. Model R-1 is great for short-range rifle shooting. And Model R-22 makes even a beginner look good with a 22.

See all four Owik-Point optical sights at your dealer. Or write for free Weaver catalog that shows the complete line of Weaver Scopes, Sights, and Mounts. Sighting-in guide and tips on shooting, roo. W. R. Weaver Company, Dept. 93, El Paso. Texas 79915.



QWKPONT From Weaver... the Great American Scope Company.







For further information, write or call:

5310

5510

February-March, 1977

Scouting a Farm

In October of 1975 the Hartford, Wisconsin, FFA Chapter became involved in a project that seems to be a cross between BOAC and "Food For America."

The chapter members decided to conduct a tour for inner-city Milwaukee Boy Scouts. Their intent was to foster a better understanding between the urban and rural people. Hartford is predominately a dairy farm community located approximately 45 miles northwest of Milwaukee.

In the 1975 tour 30 inner-core Boy Scouts and their leaders traveled by bus to Hartford on a Saturday morning and spent all day touring four farms and a local cheese factory. The event was a huge success and was covered by a Milwaukee TV station.

Last October the tour was held for its second year. Because of last year's success the Milwaukee Council had to turn down Scouts in order to hold the number down to 75, one bus crammed full and two station wagons—buses aren't cheap. The Milwaukee Cub and Boy Scout Council shared half of the bus

expense with the Hartford FFA. Golden Guernsey Dairy from Waukesha, Wisconsin, donated milk for the noon lunch and each boy brought a sack lunch.

The FFA chapter members conducted the tours for the Scouts who were separated into three different tour groups.

Each group traveled in different routes to see a large automated dairy operation, a beef farm, a wild game farm, a small dairy farm and a cheese factory. Four or five FFA'ers were situated at each of the stops to conduct the groups, explain the operations and answer questions.

Aside from merely seeing the farms the youngsters also were exposed to cow milking, plowing, feeding rabbits, ducks, chickens, cattle, hogs and harvesting corn and potatoes.

This was indeed an educational experience for everyone involved. The Hartford FFA'ers were surprised at how much they enjoyed "teaching" and at how little the city boys knew about animals, crops and farms in general.

The Milwaukee Boy Scouts were impressed with just about all they saw—the questions never stopped from Scouts as well as their leaders. A few of the more popular items on the tour was seeing a cow milked, actually seeing apples on a tree and the Scouts were "shocked" when they first discovered the electric fence. (Ed Walker, Advisor)

The Scouts found plenty to get into during their farm visit. And the FFA members learned plenty too answering the many questions of the young boys.





Mark McKendrick, left, and Mike Mc-Coy, right, have formed a partnership.

Sheep Success Story

A nine-month-old Suffolk ram, owned by Mark McKendrick and Mike McCoy, has won every stock show in which he has been shown. Most recently, he won grand champion at the National Suffolk Sheep Show which was held in Louisville, Kentucky, in connection with the North America Livestock Exposition show. "This probably makes him one of the most outstanding rams in the country," according to Tooele, Utah, Advisor Leland Beckstrom.

The success story really begins when Mark McKendrick joined the FFA.

During his first year, he chose Suffolk sheep for his supervised agriculture experience. This enabled him to receive the Star Greenhand award as a sophomore, then later the State Farmer degree. Now he's working toward the American Farmer degree. He is presently serving his second term as president of the Tooele FFA Chapter of 234 members. As a junior, Mark won the state proficiency award in sheep production and one of his goals is to become the State Star Farmer.

Mark has exhibited his sheep and has won first place and grand champions wherever he has shown them, both in breeding and market classes and in fitting and showing contests. Mark was vice chairman of the Tooele Chapter's BOAC project, which won the western region and was one of the top four projects in the nation.

The success story continues with a (Continued on Page 50)

THE "Prairie Hills All Faith" outdoor chapel, built in the Stutsman County Campgrounds located on a hill overlooking the beautiful Jamestown Reservoir at Jamestown, North Dakota, became a reality in the summer of 1976.

It was a brain child of the Jamestown FFA Chapter membership and took almost four years to complete. It is a development that required the cooperation and efforts of numerous individuals working together with local, county, state and national groups and agencies.

When BOAC (Building Our American Communities) programs were first started, Jamestown FFA'ers stepped right in with the road right-of-way clean-

up, river bank cleanup, collection of food for needy at Christmas and repairing recreational equipment in parks and school playgrounds. But it wasn't until a careful survey of the community was made that a project was selected to provide a long lasting service to our community, state and nation. It started with a community needs survey made by the BOAC committee. Several projects of top priority were brought to the chapter membership for their consideration. The construction of an "All Faiths Chapel" was selected as the number one project as it received a unanimous vote of approval.

With project selection completed, the

wheels began to turn. The chapter officers and advisors met with the community ministerial organization to solicit their support. With their pledge of complete support and cooperation, the venture was underway. Because the chapel was to be built on government property, the U.S. Department of Interior had to be contacted to obtain permission to build. This was the start of a series of events that included much correspondence and many meetings.

The Jamestown Chapter membership worked with the Jamestown High School Board of Education and School Administration, Jamestown Ministerial Association, Jamestown High School vocational organizations (including FB-LA, FHA and DECA), 4-H clubs, Stutsman County Commissioners, Stutsman County Park Authority, county and state FHA offices, U.S. Department of Interior, U.S. Bureau of Land Reclamation, Horton Architects & Associates and area lumber and building construction companies. They were all very important in the chapel progress.

Almost three years elapsed before the way was cleared and the chapel construction started. The "Prairie Hills All Faiths Chapel" was completed during the summer of 1976, with the first service held on July 11. Regular weekly church services were continued throughout the summer months. Area churches chose a Sunday that they would be responsible for the weekly service and a Sunday service bulletin was prepared for the summer. Jamestown FFA'ers were always an hand to operate the public address system, to play music and to hand out service bulletins or to assist in any way that they were needed.

As a record of the success of the chapel, a Sunday service guest register was kept. After the last summer service on Labor Day, the register was reviewed. The records were very gratifying as they revealed people from 12 states, 4 Canadian provinces, in addition to 24 different cities throughout North Dakota enjoyed the Christian fellowship at the Prairie Hills All Faiths Chapel. It is very evident, that with the tremendous success of the chapel this past summer, its use will be expanded in years to come.

To plan and construct a project of this magnitude requires adequate financing. The chapter conducted several money making activities, local individuals and businesses made cash and material donations. However, the greatest amount of money came from memorials to Diana Heasley, a devoted chapter member, who lost her life in an auto mishap. The Prairie Hills Chapel was officially dedicated on July 25, 1976, to the memory of Diana. (By Jim Nayes, advisor, Jamestown FFA Chapter)

FFA Builds a Chapel

It took a lot of work and nearly four years for the Jamestown FFA Chapter to complete the chapel.



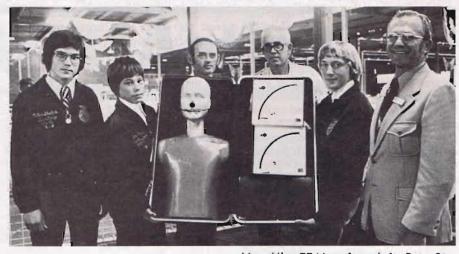
(Continued from Page 48)

friend and neighbor of Mark's, who is a sophomore at Tooele, Mike McCoy. Mike is the FFA chapter's Star Greenhand and will be competing for the State Star Greenhand award. His supervised agriculture program of registered Suffolk sheep has a good chance of winning that award as well as the state proficiency award in sheep production. Mike is a member of the FFA livestock judging team and a member of the Junior Soil Conservation Board. His goals now are to be a chapter officer, State Farmer and American Farmer and he wants to win the Sheep Production Proficiency award.

Since their interests and goals were similar, Mark and Mike decided to form a partnership. Their greatest supporters in their sheep business and in their FFA activities have been their parents, Mr. and Mrs. James S. McKendrick and Mr. and Mrs. Melvin McCoy.

Parental involvement resulted in fathers joining with sons and forming the Double M Sheep Company. The Mc-Kendricks own only six acres and the McCoys only one acre, but in spite of the handicap of living on city lots, they have built one of the best flocks of Suffolk sheep in the country. They have an outstanding flock of 57 ewes and two rams.

On February 26, 1976, one of their best ewes had a set of twins, a ram and a ewe. At birth the ram lamb was exceptionally large. As he developed and grew in the next three months, it became obvious that he was a prize ram. When the ram was five months old and had won grand champion at the Tooele County Livestock Show, many of the top Suffolk sheep breeders in the country recognized the potential of the



young ram and made them offers of several thousand dollars.

In September, the ram was exhibited at the Utah State Fair, where he won grand champion in the FFA division and grand champion in the open class. At 6½ months old, the young ram won over aged rams shown by top breeders from around the country. At this time the Double M Sheep Company decided to keep him for their own herd sire.

With encouragement from the sheepmen in this area and surrounding states Mark and Mike decided to exhibit the ram in the National Suffolk Sheep Show in connection with the North American Livestock Exposition show in Louisville, Kentucky. (Leland Beckstrom, Advisor)

The Heart of the Matter

"AMBU", a training aid used in teaching cardio pulmonary resuscitation (external heart massage) techniques, was recently presented to the Minnesota FFA by CENEX in the name of the New Ulm FFA Chapter. The presentation, made at the Minnesota State Fair, recognized the New Ulm Chapter's outstanding participation during the past

New Ulm FFA'ers from left, Pete Stadick, John Morh, Advisor Stuckey, state FFA Advisor Day, Mike Martens and CENEX supervisor Harold Jackson.

year in the company's Lifesaving Kit project.

The lifesaving kits were developed by CENEX to treat farm field accidents. This past year they have been sold in local co-ops throughout Minnesota and several other states. FFA members and chapters in nine states worked with local CENEX-affiliated co-ops to mount the kits on farm machinery.

New Ulm led all Minnesota FFA Chapters in the number of kits sold in the state. In recognition of this, "AMBU" will travel to high schools throughout the state in New Ulm's honor, to be used as a training aid.

"AMBU" simulators will also go to eight other state FFA organizations in honor of local chapters that distributed a large number of lifesaving kits in their areas. Those receiving recognition are FFA chapters in Nyssa, Oregon; Connell, Washington; Gillette, Wyoming; Fairview, Montana; Sun Prairje, Wisconsin; Clear Lake, South Dakota; Minico, Idaho; and Carrington, North Dakota.

Obstacle or Opportunity?

In our lifetime there are many obstacles we must surpass to achieve our goals. For some of us those obstacles we encounter are small; for others they are a little bigger.

Barry Trussell is one California FFA'er with an obstacle in his way, but he gets around. Barry has two kidneys but unfortunately they don't filter enough toxins in his blood.

Three days a week Barry goes to the Martin Luther Hospital and sits for six hours with a hemo dialysis machine filtering his blood. Without these treatments he would, as he puts it, "cease to exist."

The I20 members of the Buckeye, Louisiana, FFA Chapter worked together on one project this year and it paid off. All I20 of them wrote a letter to the manager of a local firm asking about the possibility of getting a new vehicle for the chapter to use in 1977. The three-year-old chapter succeeded and Mr. John Huffman gave them a 1977 GMC Suburban which they are posing next to.



As a junior at Westminster High School, Barry is interested in all his classes, especially horticulture. After he graduates, he hopes to open a nursery. For two years now Barry has been actively involved with the Future Farmers of America. He received both his Greenhand and Chapter Farmer degrees. In the farm greenhouse Barry has raised scores of house plants and he also raised a steer. Right now Barry is building a 12 foot by 12 foot greenhouse in his backyard. There are about 500 plants in it so far.

Barry stays away from rough sports and too much hard work but on the weekends he loves to go hang gliding.

It doesn't look like there's going to be a transplant in the near future for Barry, but he is not too disappointed. The only thing that bugs him about his condition is that the treatments take up so much of his time. But he says with a smile, "It's really not the end of the world." (Kathy Tengan, Reporter)

Hatchin' an Audience

The Sapulpa, Oklahoma, Chapter maintained the Children's Barnyard at the Tulsa State Fair in October. The barnyard consists of baby animals for the children including hatching baby chicks, ducks and baby calves. The chapter hatched 1,800 eggs at the barnyard. Children were able to watch the baby chickens hatch through a clear glass in a portable incubator.

Over one million people passed through the barnyard. The chapter maintained the barnyard 24 hours a day for the 10-day event and all 77 members of the chapter participated. (Howard Gilbert, Reporter)

(Continued on Page 52)

After the crowds, it's clean up time. A main attraction of their exhibit was newly hatched chicks in the incubator.





(Continued from Page 51)

100 Percent Involvement

There is a little FFA chapter in the community of Briggsdale, Colorado, with just 16 members, but that's half of the high school.

The Briggsdale School District is 25 miles wide and 24 miles long located 45 miles from Fort Collins. There are 31 students enrolled in the high school—16 boys and 15 girls—with 11 students in vo-ag.

There are just two Greenhands, three in Ag II and six in Ag III and IV with five out-of-school members.

The chapter members' supervised occupational programs are mainly winter wheat, beef cattle and swine production. Some members are involved in trucking and custom farming.

The agriculture commodities of the community are winter wheat, spring barley and dryland hay. The cattlemen have mainly breeding beef. The ranchers are fortunate to have the Pawnee National Grassland within the community to provide summer grazing. There is some swine fattening and swine breeding in the community.

Major chapter activities include state and national conventions, district and state judging contests, national chapter award program and a comprehensive safety program. Major phases of the yearly safety program are sponsoring a Red Cross first aid course, a hunter safety course, a rabies vaccination clinic and a fire prevention demonstration.

The chapter is participating in BOAC program this year. Plans are under way to convert a vacant lot next to the school into a park and desert garden for



With such a small chapter, everyone gets leadership experience sometime during his or her FFA career. From left to right, Joe Crowder, advisor; Todd Franks, student council; Arland Ball, sentinel; Rock Martin, reporter; Jim Cass, treasurer; Jeff Sievers, Secretary; Cheryl Ruh, vice president; Dan Davis, president.

the school and community to use. Other chapter activities are the Eaton Seed Show, Northeast Weld County Fair, the Weld County Fair and the State Fair.

Money making projects are a slave sale, a booth at the carnival and a junk battery drive. (Joe Crowder, Advisor)

Green Production Line

Each year the Housatonic Valley FFA Chapter, Falls Village, Connecticut, has their Christmas sale and production project. It's the biggest moneymaking activity the chapter has.

The vo-ag center is converted into a production center for making and decorating wreaths, sprays, candleholders and garlands. At the beginning each student selects a job he would like to do. The jobs he may select are cutting greens, bunching greens, tying wreaths, decorating wreaths, making and decorating sprays and candleholders and stringing garlands.

In the times when the job the student has is slack he may do smaller jobs such as wiring pine cones, making laurel and berry sprays or getting supplies.

Besides the work that is done during class, students come in during their free periods and stay after school until 5:30. There is nightly production from 7:30 until 9:30, too.

Students put in sales time at the Christmas tree stand on Route 7. Trees grown by the FFA are sold. Customers may buy trees from the stand or go into the lot. The students themselves learn salesmanship and each of them get graded on their sales, production, extra duty and their work habits and attitudes. The Route 7 Christmas tree stand is open December 8-23 from 11 a.m. until 5 p.m. (Patti McLoughlin, Reporter)

Building a Ballot Box

In Northwood, New Hampshire, the Coe-Brown Academy Much-To-Do FFA Chapter was asked by the town to build a voting booth for the November election.

The materials prepaid by the town were delivered to the Academy. The booth turned out to be a successful and rewarding project because of the hard work of several chapter members.

The chapter received a letter of appreciation from the Northwood Board of Selectmen thanking them for a community service project which will be used for years to come. (Steve Ryan, Reporter)

People Swap Places

The Hobson, Montana, FFA welcomed a three-day visit from seven members and the advisor from the Chokio-Alberta, Minnesota, Chapter.

They arrived in Hobson July 14 where the host families met them.

It was haying season so the Minnesota students got in on cutting and stacking hay. Brian Hartman and Michelle Staples helped with getting cattle ready for fairs. Jim Koch and Eric Williams painted at the Fairview Angus Ranch.

The Minnesota students and their

Theme of Northern Lebanon, Pennsylvania, FFA's Bicentennial float was "let freedom ring." It featured the Liberty Bell and an FFA girl as Betsy Ross stitching the stars on a 1776 flag. The float was in five parades and won first in four.



Hobson hosts received free swimming tickets from the city of Hobson and most of them had a chance to use them.

During the three days, the chapter advisors went to the different farms and saw the farming experience programs of the students.

On Saturday morning the Minnesota students left Hobson and went to Glacier Park before their long journey back home.

We all enjoyed their stay and hope to go to Minnesota next summer. The following Hobson FFA members were hosts to the Minnesota members: Valerie Stevenson hosted Michelle Staples, Dandy Voth—Dixie Berg, Rod Linhart—Pat Daly, Eric Williams—Jim Koch, Jerry Stevenson—Brian Hartman, Dan Swanz—Kermit Lange, Jeff Little—Lowell Cin and Mr. Glen Gore—Mr. Lyle Westrom.

Wet Corn Wins

High yielding corn! That's just what Kathy Peery got from a program utilizing irrigation.

Kathy is the daughter of Dean Peery and is a member of the Van-Far Chapter in Vandalia, Missouri. This is her first year of participation in Funk's 304-Bushel Challenge corn growing contest.

She planted a 1½-acre plot under her father's 160-acre center-pivot system. With the help of irrigation, the crop weathered Missouri's worst drought since 1889, abnormally hot summer winds and mid-summer hail storm to yield a respectable 150-bushels per acre. Dryland yields elsewhere in the county were as low as 5-bushels per acre.

"The circle more than tripled the dryland yields for this area," Kathy says. "It saved my fertilizer investment."

Kathy increased her fertilizer rates in order to be more competitive in the high yield program. She applied 125 pounds per acre of 112-114-256 with a truck at preplant and 125 pounds per acre of 18-46-0 as a starter. In addition she sidedressed the plot with 366-



Kathy consulted former Advisor Steve Yates, left, and current Advisor Joe Coldwell in developing her corn plot.

pounds of anhydrous (300 pounds actual N) per acre.

The G-4507 was planted on May 4 in 38-inch rows at a population of 28,000 seeds per acre and immediately irrigated with two inches of water. The crop was harvested on November 3 at 20 percent moisture and at a population of 28,000 plants—almost 100 percent germination! All total, the crop was irrigated seven times.

Her crop insurance covered 10 per-(Continued on Page 54)





(Continued from Page 53)

cent loss resulting from mid-summer hailstorm. Her weed control program consists of three pounds of Bladex and one pound of atrazine. She used Heptachlor for rootworm and cutworm control.

Tradition Out of a Box

The Fallbrook, California, FFA took advantage of the old fashioned atmosphere of the Reche Schoolhouse to revive an old American tradition. The surroundings of the schoolhouse created a perfect setting to hold their box social.

The Reche Schoolhouse was first built in 1886. It burned down in 1896 and the present building was built that same year. By just looking at the early American decor of the building, you can see that school life was different in the nineteenth century than it is now. They had no electricity, so the building was heated by a large woodburning stove which still stands there. This setting helped make an old tradition come back to life.

The festivities started at 3:00 p.m. with a fast-moving game of volleyball. At about 4:30 the serious business began. Each girl had prepared a dinner for two people, putting it in an individually decorated unidentified box or basket. All of the boxes were set on a table in front of the room. An auction was held

for each box where the boys bid on the boxes according to how it was decorated, as they did not know what was inside.

The boxes were decorated in a variety of ways. The box proclaimed Best Decorated was shaped like a bulldozer with track wheels, blade and roll-safe cab and painted orange. It was made by Karen Kooyman, who won an African violet for her efforts. Others were decorated like a CB radio and like a covered wagon with the words "FFA or BUST" on the side.

The auctioneer, John Stokes, started the bidding at \$2.50. The highest price was \$7.00 by Olen McDowell. Olen received a bag of suckers for being the biggest "sucker" of the day. He purchased Karen Kooyman's "tractor." Karen received another African violet for submitting the box receiving the highest bid.

Each boy ate dinner with the girl whose meal he had bought. After dinner everyone danced to the music provided by a stereo. The FFA revival of an American heritage for this Bicentennial year was enjoyed by members and advisors alike. The event ended with clean-up at 8:00 p.m.

The money made from the auction was given to Luis Martinez to help pay for his trip to the National FFA Convention held in Kansas City.

Shady Service

As part of Marshall, Wisconsin,

The Clinton, Missouri, Chapter was winner of the award for having the outstanding field crops exhibit at the state fair. Members of the chapter shown with parts of the exhibit are from the left, front row: Paul Wilson, Phillip Houk, Keith Spackler, Jim Hunter and Kent Spackler. Back row from left are: Raymond Bernardt, representing the Missouri Farmers Association, presenting trophy to Advisor William Hinkebein, Kent Benson, Rick Hunter and Advisor Jerry Cobb.





Paul Roomsburg, Hampshire County FFA in West Virginia, won first place in the 1976 state FFA talent contest. He walked away with the title by playing a dulcimer he had designed and built. Paul won a \$50.00 check.

BOAC program, the chapter sold shade trees and planted them throughout their area. The program involved organizing, advertising, selling, planting and delivery of trees.

The chapter advertised in the district newsletter, local newspaper and had posters around the town. Then the selling phase was done in three days.

There were four different kinds of shade trees offered for sale and 40 trees were sold.

The FFA members delivered and planted the trees on April 20, Arbor Day. They received cooperation from a local nursery on the project.

Profits that the chapter earned from the tree sales were donated to the Marshall Bicentennial Committee for the restoration of the bandstand. (Marilyn Annen, Reporter)

Old Attractions

The Logan Elm, Ohio, Chapter recently held an Old Farm Day at the high school. FFA members and parents, as well as several people in the community, displayed hundreds of old farm tools and equipment.

All high school and junior high school students along with faculty had the opportunity to see everything on display, including an old steam engine, grinding mill, corn husker-shredder, wheat binder, old drills and plows, old tractors and a herd of goats.

Demonstrations during the day included macrame, wool spinning, forging and apple butter making. Many students and faculty dressed in bib overalls and farm clothes for the occasion.

During the last two periods of the day, the high school students participated in contests on the football field which included sack races, corn husking, egg tossing, three-legged races and greased pole and greased pig contests. Trophies were presented to all winners of the contests. (William Rittinger, Reporter)

If you're interested in becoming an Army officer, apply early for a college scholarship.

Each year, Army ROTC awards hundreds of four-year, full



tuition scholarships. Few scholarships can offer you as much as this one does.

It pays for full tuition, books, lab fees, and other related educational expenses. It pays you \$100 a month, up to ten months each year. When you add in approximately \$500 earned at the Advanced Camp after the junior year, this four-year scholarship can be worth between \$10,000 and \$33,000.

The period for requesting application forms for four-year

Army ROTC scholarships is April 1 through November 15.

But if you're a high school junior and return your completed application forms before September 1, you'll have two opportunities to be considered. That's because we have an early scholarship selection program awarding about 300 scholarships in October. With the remaining scholarships to be awarded next April.

Your military obligation as a scholarship recipient is four years active duty, serving as an Army officer. If you're prepared for this commitment, and believe you have the dedication and ability to learn what it takes to lead, then

request more information now.

Army ROTC, P.O. Box 12703 Phila., PA 19134 Send me all the facts about Army ROTC Scholarships.

☐ Ms. ☐ Mr		Age
Address	(City
County	State	Zip
Phone		
High School Attending		
Graduation Date		

NFF 7-03

ARMY ROTC.
LEARN WHAT IT TAKES TO LEAD.



SPECIAL PUBLIC **RELATIONS PACKAGE** FOR CHAPTERS

Chapters should get in an order for Calendars to distribute in the community. At the bank, fire station, post office, county court house, elevator, veterinarian's office, school library, or principal's office. Encourage your chapter to order now.

50 Home & Office Style

25 Desk Style

15 Poster Style

25 Wallet Style

Regular \$71.25 Value

Address

All for \$50.00

Includes Shipping Costs (Va. orders add 4% state tax)

7IP

Please send a Special PR Package, I understand they have a general imprint message about FFA on them.

Name		
Chapter	The state of the s	

City and State

Clip & mail this Coupon to:

Official FFA Calendar Department The National FUTURE FARMER P. O. Box 15130 Alexandria, Va. 22309

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Required by 39 U.S.C. 3685)

1. Title of publication: The National FUTURE FARMER.

2. Date of filing: September 27, 1976.

3. Frequency of issue: Bimonthly.

3A. No. of issues published annually: 6.

3B. Annual subscription price: \$1.00; FFA members 75c paid with dues.

4. Location of known office of publication: 5630 Mt. Vernon Highway, Alexandria, Virginia 22309.

5. Location of the hendquarters or general business offices of the publishers: National FFA Center, 5630 Mt. Vernon Highway, Alexandria, Virginia 22309.

2339.

Names and addresses of publisher, editor and addresses. America, National FFA Center, 5630 Mt. Vernon Highway, Alexandria, Virginia 22309; Editor, Wilson W. Carnes, 5630 Mt. Vernon Highway, Alexandria, Virginia 22309; Editor, Wilson W. Carnes, 5630 Mt. Vernon Highway, Alexandria, Virginia 22309; Managing Editor, none.

Owner: Future Farmers of America (a non-profit organization), National FFA Center, 5630 Mt. Vernon Highway, Alexandria, Virginia 22309.

S. None.

8. None.
9. The purpose, function and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during the preceding 12 months.
10. Extent and nature of circulation:

10. Extent and nature of circulation:

Average No. Copies Each Issue During Last 12 Mo. Nearest to Filing Date

A.	Total number copies	
	printed517,150	520,700
В.	Paid circulation	
	1. Sales through dealers	
	and carriers, street	
	vendors, and	
	counter sales None	None
	2. Mail subscription 513,305	516,174
~	Total paid eleculation 512 205	516,174
C.	Total paid circulation 513,305	0.10,114
D.	Free distribution by mail,	
	carrier or other means.	
	Samples, complimentary,	20.114.00
	and other free copies 2,009	2,816
E.	Total distribution515,314	518,990
F.	Copies not distributed.	
	1. Office use, left over.	
	unaccounted, spoiled	
	after printing 1,836	1,710
	2. Returns from	
	news agents None	None
G.	TOTAL	520,700
-	I certify that the statements made b	y me above
:000	correct and complete.	- 1
	WILSON W. CARNES.	Editor

Agriculture—FFA

(Continued from Page 14)

study showing just how much capital needs have grown. The study showed that an "average" 480-acre corn-hog farm in eastern Nebraska may require \$250,000.00 of long and short-term credit. For a 22,000-acre cow-calf ranch in northern Nebraska these figures run to \$1,765,000.00.

This year my younger brother found it necessary to invest \$130,000.00 to produce a little over 500 acres of corn, soybeans, grain sorghum, and flue-cured tobacco. As the growing season shifted from unusual cold, to drought, to the wettest June on record in Georgia, the strain became obvious.

In times past, a crop failure simply meant one did not earn a profit. In today's high-powered farming, a single crop failure can spell financial ruin.

The psychological burdens attached to the debt requirements of present day farming is perhaps the most subtle and overlooked problem of the whole industry. It threatens the mental health of farmers, young and old alike. Ways must be found to deal with it.

Obscure though it may be at the moment, agriculture has an energy crisis on its hands. To face the challenge of "produce or perish" farmers have become almost entirely dependent on machines and the energy sources which run them.

In 1850, fuel sources on the farm were 95 percent naturally renewablemen, animals, wind, water, and wood. Today, 95 percent of energy sources are non-renewable-coal, oil, and natural gas. Once exhausted, the non-renewable energy sources are gone forever. In the meantime they grow scarce and expen-

Our nation must have an agriculturalenergy program. It must be developed and put in place while we are not in the emergency that will surely come. We must see to it that the farmers of North America have the petroleum, the natural gas, the phosphate, the rubber, and all of the other materials required to produce food for a hungry world. This will require study and planning. But, it is not beyond our capabilities.

America's farm surpluses, a portion of which I saw on my first trip to Kansas City have disappeared. A new set of perplexities has replaced them. Since 1972, we have witnessed enormous swings in the prices for basic farm commodities. As the meat shortage developed and the price of bread soared on the heels of grain sales abroad, the nation literally underwent a cultural shock. All this had occurred in a country where for decades farm surpluses were considered a national problem.



"America's farm surpluses . . . a new set of perplexities has replaced them."

A major question before agriculture, therefore, comes down to one of reserves-having enough on hand here and abroad that will provide a measure of price stability and that will absorb the impact of shortages. All of this can and should be to the benefit of farmers and consumers alike.

The accumulation of an ever-normal granary will be no easy job. Questions arise as to how reserves should be stockpiled and who should own them. A possible side effect could be spiraling prices and another food-price explosion in the short run. While fully acknowledging the thorny path that must be trod, I respectfully submit that the business of guarding against production shortfalls is one with which the nation's agricultural leadership, public and private, must come quickly to grips.

Hovering over everything is a worldwide predicament in which North American agriculture is thoroughly enmeshed. I refer to the food and people crisis. As the editors of one farm publication have so aptly stated, "the numbers alone force us into a world like none in history." We have all heard the statistics. They never fail to stagger the mind.

At current growth rates, more than 75 million people are added to the human family every year. Every three years, more people are added than now live in the United States. Within six years the world will be faced with a new Europe in numbers; Asia alone is adding a new Japan every second year; Latin America, now the most rapidly growing area, is expected to add more than 350 million persons by the year 2000. By that time Africa then will have surpassed Europe by 275 million.

The totals are alarming, too. Mankind did not reach its first billion until 1850. The number doubled in our own century, just 80 years later. Still accelerating, the population added its third billion in 30 years, in 1960, and its fourth in 15, just last March.

Demographers expect world population to double between 1975 and 2000. That means that even if we somehow manage to double world production of food, minerals, housing and everything else, more people than ever will still be starving. The hunger gap can be removed only by trebling food production during the next 25 years. A prospect few believe is possible.

The preposterous notion that this mounting tidal wave of humanity poses a bonanza for American agriculture must be dismissed. On the contrary, it poses a threat of the greatest dimension; one I deeply believe is only dimly seen.

If runaway population continues unabated, it is only a matter of time until a famine of incalculable dimensions develops somewhere in the world. When that occurs, we could find ourselves reacting to the proposition, that cropland is too vital a resource to leave in private hands; that hunger and survival must take precedent over a free agriculture. Short of this, the specter of starvation, as viewed live and in color on television, could start a movement for control and regulation of farming that runs afoul of individual liberty and free enterprise.

We must, therefore, remove the problem of population from the shoulder of the American farmer. There it does not belong. Instead we must demand now, for the sake of ourselves and surely our posterity, that public leaders, in and out of agriculture, do what the times require. We must encourage farm producduction. Yes! But, we must also act wherever and however possible to balance population. Failure in this effort, my friends, could be fatal.

Solution for the problems I speak of will require our fellow countrymen to look upon agriculture in a different light.

We must stop viewing it as a tool for international diplomacy and as a vehicle for balancing the flow of gold in and out of the country.



Even dogs from nice families get worms.

Any pet can get roundworms. Even house pets. Large roundworms are dangerous and can be fatal if left untreated. Sergeant's* Worm-Away* Capsules make it easy to solve the problem. Simply mix Worm-Away with your dog's or cat's dinner. Sergeant's also makes Tapeworm Medicine, and Sure-Shot* Capsules and Puppy Capsules for hookworms. Just some of over 300 quality tested products from Sergeant's.

△ Sergeant's

the pet care people

© 1976 Miller-Morton Company, a subsidiary of A. H. Robins Co. Richmond, Virginia 23230



We cannot think of agriculture as a segment of our economy separate and apart from consumers, the world of finance, and organized labor. A great Iowa farmer by the name of Henry Wallace advocated this in 1923. He said: "As our civilization becomes more complex the relationship between agriculture, industry and general business becomes more and more intimate. What hurts the one will hurt the others. In general what helps the one will help the others."

Furthermore, as Ted Schwiden, Montana's Commissioner of Lands has so keenly observed, we need to stop dealing with agriculture in America on a crisis basis. It would be to our great advantage to approach the present-day problems in terms that go beyond next week or next year and consider the consequences of our actions and policies over the next decade, the next generation.





ENGRAVAPLATES, DEPT. 198
BOX 10460 • JACKSONVILLE, FLA. 32207
Please rush FREE order-taking outfit
with octual sample. No obligation.
Name.

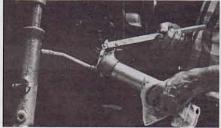
Address City____ State__

____Zip_

Get Ready

(Continued from Page 44)

Even if you greased all bearings and shafts thoroughly at the end of last sea-



Lubrication should not be overlooked.

son, pump them full of fresh grease now. This will force out all the moisture which may have condensed inside during the winter. Be sure to wipe clean all the grease fittings before applying the grease gun. Otherwise, you may force dirt directly into the bearing along with grease.

Implement tires should be checked carefully. Implements are often equipped with discarded auto tires, and while such tires are usually adequate, their reliability may not be the best. After several months of nonuse, they may require repair. They most certainly will require inflation to the proper pressure

This is also a good time to check that you have the owner's manuals for your various pieces of equipment. In most cases they are an invaluable reference for lubrication requirements, adjustments, and repair part numbers. You should refer to them often during the season ahead.

Nuts and Bolts. Last, but by no means least, go over all your machinery and tighten all bolts, nuts, and capscrews that have worked loose. This simple precaution can prevent much serious and costly damage during the busy season.



An American tourist in a Madrid restaurant wanted to order steak and mushrooms. He spoke no Spanish and the waiter knew no English. The diner drew a picture of a mushroom and a cow. The waiter brought him an umbrella and a ticket to the next bullfight.

Darrell Grigsby Springfield, Kentucky

Q: What did the bird say when his cage broke?

A: Cheap, cheap.

Ronnie Mriscin Forento, Illinois



"I don't know who he is but he knows more about cherry trees than anyone I've ever met!"

Q: What does a teenage boy octopus say to a teenage girl octopus?

A. Let me hold your hand, hand, and, hand, hand, hand, hand.

Jill Harton Warren, Arkansas

Eggs aren't all they're cracked up to be. They're nothing but a big yolk.

Roy Cadalbert Hollister, California

Mike: "What's wrong with that club of yours?"

Pete: "Beats me!"

Tony Chestnut Jakin, Georgia

Mother: "Were you sticking your tongue out at that little girl?"

Little Boy: "No I was giving it air!" Bill Ballard Roseland, Louisiana

Two golfers were out on a very hot day. One golfer had a sun stroke and the other one made him count it.

Kevin Thompson Roseau, Minnesota

Four-year-old Larry went with his dad to see a new litter of kittens. He returned breathlessly to tell his mother. "There are two boy kittens and three girl kittens."

Curosity prompted his mother to ask, "How do you know that?"

Larry replied, "Daddy picked each one up and looked-I think it's printed underneath."

Nancy Kramer Algona, Iowa

Diner: "Waiter, this lobster has only one claw."

Waiter: "Yes, sir, and that proves how fresh our lobsters are. They fight back in the kitchen."

Diner: "Well, go back in the kitchen and pick me a winner."

Nancy Somers Cressona, Pennsylvania

A man was teaching his dog how to play poker. When the neighbors remarked how smart the dog must be, the man said with a shrug, "Not so smart, whenever he has a good hand, he gives it away by wagging his tail."

Robin Sloma Brillion, Wisconsin

Two farm boys were arguing about their physical strength. The little fellow said, "I'll bet you \$10 that I can wheel something in a wheelbarrow from here to the barn and you can't wheel it back."

The big lad scratched his head in astonishment as he said, "It's a bet." The smaller one smiled, rubbed his hands together, picked up the handles of the wheelbarrow and said, "OK, climb in."

Larry Elliott Sasakwa, Oklahoma

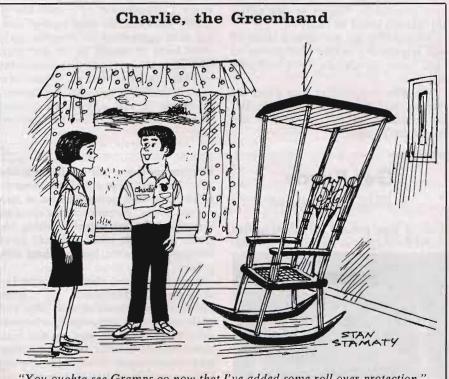
The little boy had been very naughty and his mother angrily said, "You know what bad little boys get. Bring me the hairbrush."

The little fellow scampered off into the bedroom and returned quite a bit later. Looking his mother squarely in the eyes he said, "I couldn't find the hairbrush, Mommy, but here's a rock you can throw at me."

Thomas LaMance Modesto, California

Q: Why is a horse like an egg? A: It has to be broken before it can be used.

> Kenneth Lopez Iowa, Louisiana



"You oughta see Gramps go now that I've added some roll over protection."





If it doesn't say'New Holland'it's not a genuine Strong-Box. That's important, because the last thing you want in a spreader is a breakdown. You want one that stands up to the punishment you know is coming soon. The answer:

More steel for more strength. The way we build Strong-Boxes. With extra-strength steel all over-in the chains, in the paddles, in

the frame and the axle.

Plus our Bonded Protection Policy. It means that you, or any owners that follow you, get new sides free if the sides rust through while the rest of the spreader is operational. You can tailor



a Strong-Box to the job, too. A new double-action apron (an option on three models) speeds soupy material to the paddles faster. To reduce liquid loss, add a fine-manure pan and hydraulic endgate.

For fine topdressing, an upper beater is available. The man to see is your Sperry New Holland dealer. You know manure is more valuable than ever today, so isn't it worth the most durable, dependable delivery system around?



SPERRY HOLLAND Sperry New Holland is a division of Sperry Rand Corporation