

FFA

APRIL-MAY 1990

New Horizons

OFFICIAL MAGAZINE OF THE NATIONAL FFA ORGANIZATION



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FFA New Horizons

OFFICIAL MAGAZINE OF THE NATIONAL FFA ORGANIZATION

April-May, 1990

Volume 38 Number 4

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The Safe Combination

This special seven-page section tells how FFA members can protect themselves, their environment, and the nation's food supply when using crop protection chemicals.
Photo by Andrew Markwart.

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Agriculture's New Professionals: Biologist

Former FFA member Denise Thomson works at American Cyanamid on creative new ways to combat insects.

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It's the special mix of competition and cooperation that makes being a twin in FFA double the fun.

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The Mackay, Idaho FFA Chapter has given new life to some old machinery and new hope to Polish farmers.

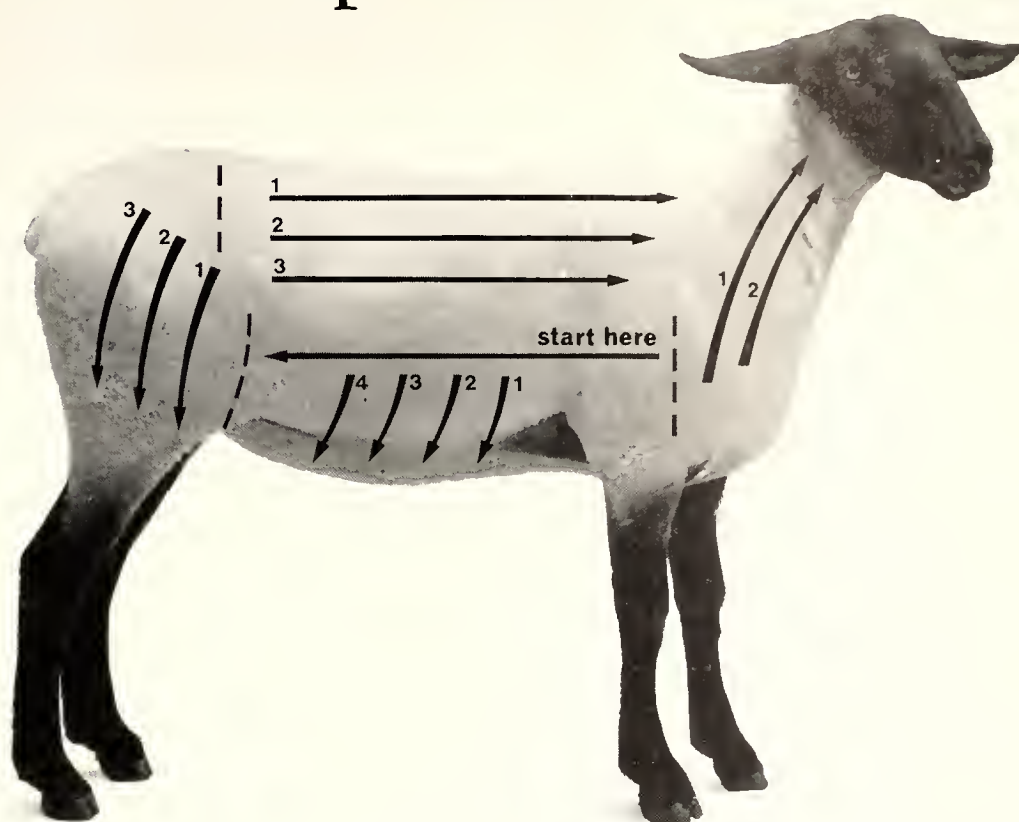


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FFA

THE BOTTOM LINE

The special feature in this issue is a section on the subject of agricultural chemicals. We hope you will read it carefully and observe the guidelines set forth urging a sane and sensible policy regarding both safety and the environment.

We have come a long way in the use of chemicals. On most farms, insecticides are no longer sprayed based on a schedule rather than need. Many undesirable chemicals have been banned outright and the use of others has been severely restricted. But the debate over the use of chemicals goes on, sometimes filled with emotion. The bottom line is that we have an abundant supply of safe food in this country as illustrated on the cover of this issue.

Keeping a proper balance between the use of chemicals in agriculture and the need for them is a never ending challenge for people engaged in the food and fiber industry. As new needs emerge, and new chemicals are developed, the system of checks and balances must continue to work. As FFA members and students in agriculture, you are in a good position to study both sides of the issue of whether to use or not use insecticides, fungicides, herbicides, food preservatives and others that may be developed. Education is the answer. Rational minds backed up by facts must make the ultimate decision regarding the use of chemicals in agriculture.

We salute five individuals who have been selected for induction into the FFA Hall of Achievement at the National FFA Center. The selection was made by the Board of Directors and National Officers after a committee review of nominees from the states. Each honoree represents outstanding achievement in one of five areas in the field of agriculture. All were former FFA members or students of vocational agriculture. The individuals are:

Leadership. Frederick McClure, national FFA secretary in 1972-73, cur-

rently heads the office of congressional liaison for President Bush. (See separate article this issue)

Agricultural Production. Robert Book is president of the Indiana Institute of Agriculture, Food and Nutrition, Inc. and has a large farming operation outside of Carmel, Indiana. In addition to producing corn and beans, his operation is on the leading edge of estrus synchronization and embryo transplant in beef.

Agribusiness. Dr. Norman Brown was national FFA secretary in 1958-59. He presently serves as president of the W. K. Kellogg Foundation and has devoted his leadership to programs worldwide that provide for education, improved health and the development of agriculture.

Agricultural Education. Carl Humphrey was present when the FFA was organized in Kansas City in 1928. Later, he devoted his entire professional life to agricultural education, first as an ag teacher and later as the Director of Agricultural Education and state FFA advisor in Missouri. Mr. Humphrey also served in several national leadership positions with professional organizations in agricultural education.

Chosen at Large. Don Erickson was chosen posthumously (deceased November 21, 1989), to represent this category. During his career, Mr. Erickson was a teacher of vocational agriculture for 29 years before serving as state supervisor and FFA advisor in North Dakota. At the national level, he was director of the talent program at the national FFA convention, revised the Student Handbook, co-wrote the FFA Advisors Guide to the Student Handbook and served in many other leadership roles.

These individuals will also be recognized at the national FFA convention in November, a fitting tribute in recognition of their outstanding careers.

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Americans At Their Best.

LOOKING AHEAD

Death to Gypsy Moths

A new potential weapon against tree-damaging gypsy moths is a virus strain called Abby, developed by a U.S. Department of Agriculture Scientist. The virus kills gypsy moth caterpillars, but doesn't harm anything else, according to entomologist Martin Shapiro of USDA's Agricultural Research Service. Once applied, he said, Abby could run its own biological control program from year to



Gypsy Moth

year. He said the virus is transmitted from generation to generation, unlike chemicals, and is capable of perpetuating itself within gypsy moth populations.

Shapiro said that it could become an alternative to either the bacteria or chemical pest controls currently used.

Gypsy moth populations have been exploding for the past several years and officials anticipate that the next three years will be worse. All states east of Ohio and north of Virginia are infested with the moth. It has also been found in pockets around the country and officials expect it to spread. Moth caterpillars eat foliage of more than 500 species of trees but do the most harm to American oaks and alders in forests and parks, on roadsides and in people's yards.

Soviet Grass-1

Plant explorers have returned from two expeditions into previously restricted areas of the Soviet Union with more than 1,000 forage and grass seed samples—including

ing new forms and about a dozen species they have not yet identified.

The eventual payoff could be new varieties of perennial range grasses that produce more and extend the grazing season later into the fall and winter. This would save western livestock producers millions of dollars now spent on baled hay, said plant geneticist Kay Asay of the U.S. Department of Agriculture's agricultural Research Service.

During the past two summers, Soviet scientists escorted Asay and other researchers to areas previously off limits. Many of the collections, including those yet to be identified, will be grown from seed and evaluated this summer, said Asay, with the ARS Forage and Range Research Laboratory in Logan, Utah. If U.S. researchers fail in identifying them, Soviet expertise will be sought, he said.

"Hybrids between native wild ryes and selected species from the USSR are outstanding," said Asay. "These plants often grow to almost seven feet. Their leaves cure well and protrude above the snow so cattle and sheep can graze them well into the winter."

"This kind of exploration provides us with a vast genetic reservoir that could be used to improve cereal crops," said ARS geneticist Kevin B. Jensen. "It's an opportunity for us to put together genetic combinations of grasses that have never before existed."

Putting the Paper to Bed

Recent experiments in Wisconsin, Minnesota and Pennsylvania show that compared to straw, shredded newspaper keeps cows dryer and saves dairy farmers money, said Jerry Jones, Extension dairy scientist at Virginia Tech. It also provides an outlet for the oversupply of collected newspapers piling up around the country.

Right now, some recycling dealers on the East Coast are paying up to \$40 a ton for someone to take it off their hands, according to Mike Murphy, director of the state division of recycling. "There's very little market for newspaper," he said. "We're simply oversupplied."

One reason for the glut is that some landfills are no longer accepting newspaper, Murphy said. Americans are throwing away more than 440 million pounds of newsprint every week.

Because it's a new idea, not many dairy farmers have ventured into using newspaper as bedding, Jones said, although studies have found it to be more absorbent than straw. It takes only about 80 percent as much newspaper to provide the same dryness as straw. The Wisconsin studies also showed it costs 44 percent less to use newspaper as bedding instead of straw. The newspaper is also easy to dispose of. As it gets mixed in with manure, it simply decomposes. A farmer can spread the residual product on his fields as fertilizer, Jones said.

There are some drawbacks. "Newspaper needs to be chopped," Jones said. A steady, reliable supply of dry newspaper is also a challenge.

Scientists are still looking into any possible side-effects of cows eating newspaper or of any chemical residues that could end up in the fields. At this time, however, Jones said he knows of no significant problems with using newspaper as bedding.

Gotta Wear Shades

About 15,000 eye injuries occur on American farms every year. Not only can these injuries be painful, they can result in partial or total blindness, says the American Optometric Association. But injuries can be prevented if farm workers put eye safety first. Here are some tips for avoiding eye injuries on the farm:

- Wear protective eyewear when handling agricultural chemicals, operating machinery, welding, repairing buildings, lumbering and trimming trees, or performing any other job with danger of flying pieces.

- For long periods outdoors, use tinted safety lenses that screen out 75 to 90 percent of available light and provide maximum ultraviolet protection.

- If an eye injury occurs, apply emergency care and seek treatment at a hospital or from an eye doctor. For chemical splashes, flush the eye with water for 15 minutes. For blows, apply cold compresses for 15 minutes. For cuts or punctures, bandage the area lightly and seek professional care.

- Have an annual eye examination to be certain vision is as good as it can be. Good vision can also help farm workers avoid accidents.

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We Like It

I found the name change of *The National FUTURE FARMER* to be of special interest.

As national FFA president in 1951-52, I had the pleasure of buying the first official subscription to *The National FUTURE FARMER*, which was started that year. I have followed its evolution and progress ever since, and find the recent name change to me most appropriate in keeping with the dramatically changing world in which we live.

Congratulations to you, your staff and the FFA organization for their continued updating of the FFA organization and its programs. The changes being made should help prepare these young women and young men for the challenges that lie ahead.

*Donald L. Staheli
President, Continental Grain Co.
New York, New York*

Congratulations on the beautiful February-March issue of *FFA New Horizons*. Overall it seems like a real step forward. Anybody remotely interested in the FFA must be proud of it. The wide range of articles and the high quality of the material of the publication itself just make my heart feel good.

It does so much to emphasize the importance of the FFA and agriculture.

*Archie Holdridge
Madison, Connecticut*

I would like you to know that it was a very smart decision to change the old logo of the magazine. Being in the FFA is to look into the future, but not forget the past. Its been 37 years with the old logo. Now we, as leaders, need to be more active than ever in the new developing world around us.

*Eric Camancho
Howell, New Jersey*

I think that changing the name of the magazine really expresses the FFA as well as the world.

The FFA is constantly growing, getting better and stronger. We ARE starting to see the new horizons that are available to all of us through FFA.

*Tony Thornhill
Troy, Missouri*

Why Change?

I am concerned about the future of our organization. This morning I read the article on changing the name of the *National FUTURE FARMER* magazine. Is this really necessary? I don't think so. I think that the whole idea of changing our image has gone too far!

I can understand that we have to change with the times, however, when do we say stop?

*Jennifer Andersen
Sycamore, Illinois*

How could you, isn't anything sacred? The magazine too. Thirty-seven straight years of a good thing and you change it. You changed the name of the organization. I didn't like it but I learned to live with it. The *National FUTURE FARMER* was a major part in the development of the organization we know today.

How can you change a tradition like that? What's next the jackets?

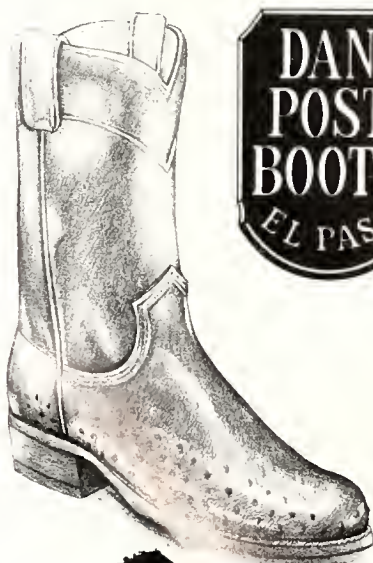
*Jason Larison
Riverton, Kansas*


I am a little disappointed that *The National FUTURE FARMER* changed its name. For 37 years we were lucky enough to have our own magazine which bore a name so representative of our organization—a name which told our members and other readers who we were, what we do, and what we stand for.

Maybe I am a minority, and for the magazine's sake, I hope I am, because if most of the people in our organization think the way I do then the magazine won't be doing so good in the future.

*Jim Mulligan
Selma, California*

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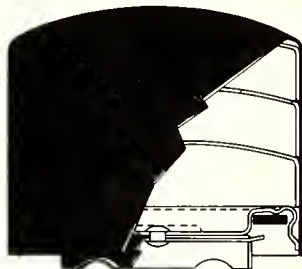
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NEWS IN BRIEF

Three-year FFA Membership Now Being Offered

Thirty-two state FFA associations have signed up for the three-year membership package now being offered for graduating FFA members. Chapters in participating states received an information packet in March that included a roster, promotional poster, and instructions on how to sign-up interested students. For further information, contact Marshall Stewart at the National FFA Center.

Nielsen Retires

Dr. Duane Nielsen, deputy director of the Division of National Programs, U.S. Department of Education, recently retired following 41 years of service to agricultural education, vocational education and the FFA at local, university, state and national levels. Nielsen had served on the National FFA Board of Directors since 1978.

Washington Conference News

The 1990 Washington Conference Program staff has been selected. The directors will be Cheryl Helmeid of Wisconsin and Mickey McCall of North Carolina. Counselors are Jeff Johnson of Florida, Tami Austin of Arizona, Matt Rekeweg of Indiana, Jaye Hamby of Tennessee, Shane Stewart of Oklahoma, Terri Hames of Oklahoma, Denise Tappy of Colorado and Scott Stump of Indiana. The advisor coordinator will be Pam Proffitt, Missouri.

There has also been another week added to the WCP schedule. A total of seven weeks of the conference will be held starting June 12 and ending August 4. Also, a new Tuesday through Saturday schedule will lower the cost of air transportation this year. Registration fee for WCP is \$350 per participant. A number of scholarships are available. For more information, look for the new WCP brochure mailed to each chapter or contact Kip Godwin at the National FFA Center.

FFA Board Meets

A number of major decisions were made at the National FFA Board of Directors meeting, held January 22-25 at the FFA Center in Alexandria, Virginia.

The Board approved a three-year membership package for graduating seniors, to be offered immediately to cooperating states. The national dues for the three-year package will be \$10.50, with a 50-cent discount for advance payment.

A motion was passed by the Board to bring the delegate reapportionment issue to a vote at the 1991 national FFA convention, at which time an amendment of two delegates per state plus one delegate per 1,000 members will be proposed. With this motion the FFA Board confirms its position (based on the recommendations of the FFA Equity Committee) that one delegate per 1,000 members is the most equitable apportionment. This motion allows one year (1990) for the new delegate system to become operative and to be evaluated prior to further action.

Also approved by the Board were: a motion to raise the national FFA convention registration from \$18 to \$20 per person; a motion that a proposal be developed for a Drug Abuse Prevention Program and be presented to the Board Governing Committee in March; and to identify a select group to attend each national FFA convention and that the 1990 convention be a trial year involving principals and superintendents.

United Kingdom This Summer

The FFA International Department is offering an exchange program this summer that matches FFA members, who are high school seniors or older, with members of the Young Farmers Clubs in the United Kingdom. Each pair of exchange students will live with the other's family for three weeks this summer.

Matched FFA and YFC members can make their own arrangements regarding travel dates and schedules. FFA will provide information on host families and the United Kingdom, assist with travel arrangements and insurance. FFA members may extend their stay in Europe if desired.

The total cost for the exchange program is \$350 plus transportation. For more information, contact Scott Ryckman at the National FFA Center, 703-360-3600.

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Ag Teacher Tops In U.S.

The advisor of the North Polk, Iowa, FFA Chapter, Thomas Cory, was named Teacher of the Year by the American Vocational Association in December. He was honored at the AVA convention in Orlando as the best vocational educator in the nation.

Cory has taught for 14 years and has brought some unusual activities and new ideas to members of the FFA. Probably the biggest surprise was having George Bush as speaker for the chapter's banquet in 1987. Mr. Bush was vice president at the time.

There are other indications of a chapter-on-the-move. The ag classroom includes an extensive agriculture communications emphasis with its own darkroom. The video camera gets a lot of use for the chapter such as public speaking training, for make up work when members are sick and miss class, for interviews for officer selection, and for historical records.

Aquaculture projects are already in common use among members of the chapter. The chapter has financed five fish tanks in the ag tech classroom.

In 1987 the chapter earned a sizable income from their work at the Farm Progress Show and they were looking for a way to effectively use the money. They decided to award a \$500 adult scholarship. The first recipient was a mother of two chapter members who was working on her degree. The scholarship is administered by a committee of adults including a farmer, superintendent, principal from a neighboring district, agribusinessman, extension agent, bank vice president, and the ag science teacher.

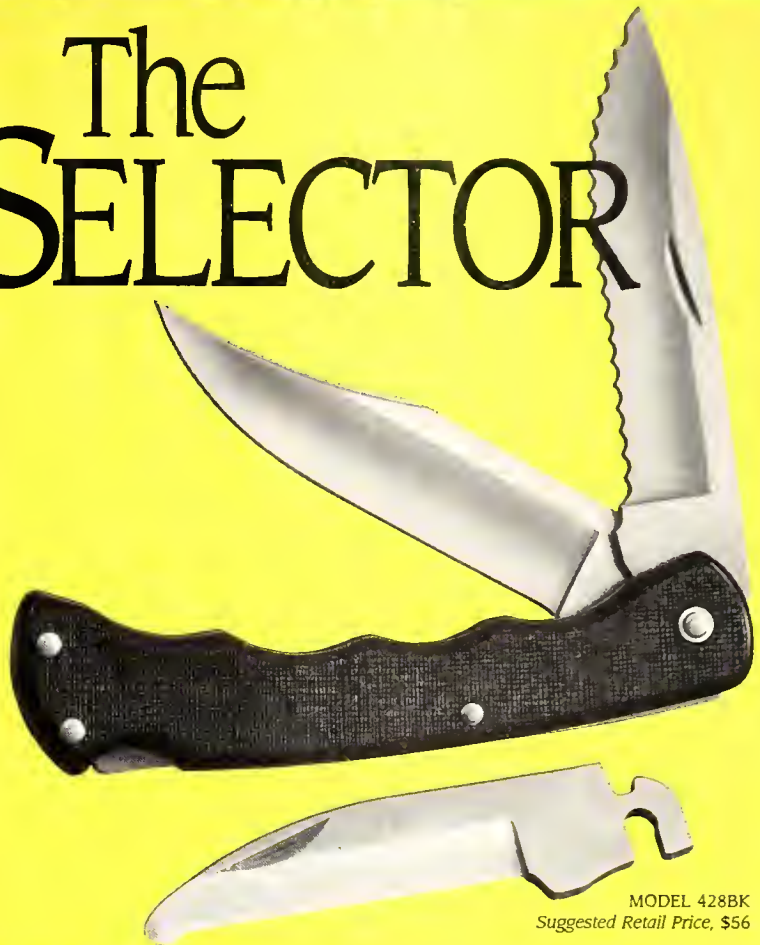


Thomas Cory

The Alumni Affiliate is very important in the success of this chapter. Here again they do all the usual things like driving cars, helping with fair entries, speaking to members. But they also sold \$10,000 worth of calendars and gave the profits for member scholarships and helped add the darkroom to the ag department.

There is never an end to the work for Mr. Cory or the North Polk members. But it all leads to success. ...

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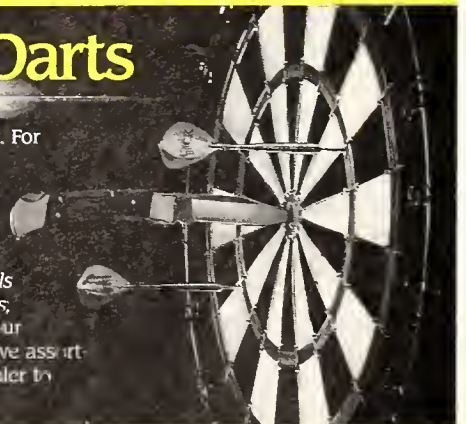
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National FFA vice president Casey Isom and the president of the FFJ chapter at Tokyo Horticultural Senior High School, pause in one of the school's lush greenhouses. The 143,000-member FFJ will celebrate its 40th anniversary this year.

Photos by Bill Stagg



With a national literacy rate of 99.3 percent and waiting lists of up to six years at major universities, Japanese parents try to enroll their children in the best schools available, beginning with preschool. Public education is free and is compulsory to age 15, and 90 percent of students finish high school.



Small, intensive greenhouse operations throughout Japan raise melons that sell in supermarkets for about 4200 yen which is 30 U.S. dollars. The FFA leaders were offered delicious slices of melons at a greenhouse in Isobe, outside of Tokyo.

Of Rice and Yen

FFA's six national officers discover Japan's inner strength

Half a world away, Japan is the single most important agricultural trading partner of the United States, and our economies and cultures are becoming increasingly entwined. This country is, quite simply, *very important*. In February, the national FFA officers came face-to-face with the realities of the international marketplace during a ten-day tour of Japan. The officers, Donnell Brown, Scott Crouch, Bill Hendricksen, Casey Isom, Brad Lewis and Dan Schroer, were accompanied by Dr. Terry Heiman, State Director for Agricultural Education from Missouri and a member of the National FFA Board of Directors; Bill Stagg, FFA Director of Information, and Jack Keller, FFA International Program Coordinator.



The national officers met with Japanese agricultural instructors, school administrators and FFJ members at the Tokyo Metropolitan Horticultural Senior High School. The 480-student school is celebrating its 82nd anniversary this year.



A Buddhist statue stands surrounded by signs on the grounds of a temple. The traditional religions of the Japanese are Buddhism and Shinto, with most households observing ceremonies of both.



Experiencing Japanese customs and traditions were a priority on the tour. Students from an agricultural high school clad in kimonos presented the traditional Japanese tea ceremony for the national officers.

The group met with Japanese leaders of agribusiness and industry, producers, teachers and students of agricultural education and staff of the United States Embassy.

The National Officer International Experience Program offers the six top FFA leaders a unique opportunity to learn about and experience the agricultural economy and social structures of this unique country. The tour was sponsored for the eleventh consecutive year by Mitsui Grain Corporation as a special project of the National FFA Foundation.

At every turn, the officers were impressed with the warmth and hospitality of the Japanese people. Japan is a society which places great value on education, quality in production, working harder *and* smarter, and efficient use of resources. As Japan becomes one of the leading economic powers in the world, it is providing both lessons and challenges for the United States. ...



At the large Tsukiji Fish Market in Tokyo, the officers inspected an octopus similar to the one they would later sample at lunch.



Japan imports over 30 percent of its food, and is the largest customer for U.S. agricultural products receiving 21 percent of our exports. The tour took the group to Chita Futo Co., a Mitsui-owned port facility in Asakura. Chief complaints about U.S. corn: too much dust, high moisture content and a concern about aflatoxin.

Profiles in Leadership: Fred McClure

Former national FFA secretary Fred McClure talks about leadership, FFA and working for the President of the United States

By Andrew Markwart

In the past 20 years there may not be an FFA member who has risen as high and as fast in the area of leadership as Fred McClure. As Assistant to the President for Legislative Affairs, McClure, 36, serves as an advisor and a spokesman for President Bush when working with the United States Congress.

A native of San Augustine, Texas, McClure served as Texas FFA president in 1972-73 and national FFA secretary in 1973-74. He received his Bachelor of Science degree in agricultural economics from Texas A&M University where he served a year as student body president.

He graduated from the Baylor University School of Law in 1981 where he was elected president of the Student Bar Association. McClure has served as legislative director to former Texas Senator John Tower, associate deputy attorney general of the United States and special assistant to President Reagan for Legislative Af-

the White House in February to find out how an FFA leader evolves into a national leader. He had just finished a memo to President Bush when the interview began.

What do you do here at the White House?

My responsibilities are basically to serve as the President's eyes, ears and mouth on Capitol Hill. I guess on day-to-day terms, I am the President's lobbyist. I spend most of my time trying to make sure that things that he wants get enacted by Congress or making sure those things that he doesn't want don't make their way down to this end of Pennsylvania Avenue (to The White House).

How do you go about that?

I make sure that members of Congress are aware of how strongly the President feels on a particular issue, or if members of Congress are making a decision, based upon different reasons from what the President might have. I make sure that the President's reasons for taking the position he has are well-known to the members of Congress. Then it's just a matter of getting them to support the President.

How much you get to see the President on a weekly basis?

That depends on how busy we are. On heavy legislative days we'll talk or see each other four to seven times a day. Other times I may go three days without seeing him.

What's it like to come to work at the White House everyday? It's a long way from your hometown when you were an FFA member. Has the novelty worn off?

No! The day that it does is the day that I'm leaving. I still get a thrill when I go

into the Oval Office to talk to the President or when I walk through the Rose Garden, or when I go through the state floor of the White House or go up in the President's residence. Occasionally, I'll just stroll out across the lawn or out the front gate, but the novelty has not worn off. It's a once-in-a-lifetime experience and opportunity and I've enjoyed it greatly, but I'd also like to keep it in perspective.

I was reading a piece in the Washington Post written about you last year. It said, "McClure's greatest strength, according to those who know him, is his way with people."

Honed by the FFA! It's public speaking and feeling comfortable with an audience. After having served as a state and national officer of FFA, you develop the ability to drop into a room of unknown people and not only emerge unscathed, but also having had some impact on the people you were with for that short period of time.

How do you do that?

You just can't practice in the FFA, I mean you're forced to do it. I guess that the people skills and the public speaking are the two things that are the most directly transferrable from those years as an FFA officer to what I do now.

At what point did you pick that up?

It was probably something I developed long before I joined FFA and started taking vo-ag. But hopefully I honed and developed it during that time-frame as a result of the opportunities that I had in the organization.

A lot of people have some skills lurking beneath the surface that just need something like FFA and vo-ag as an outlet to develop their skills further, whether it's a judging contest or participating in a parliamentary contest or making a meeting work. It's the group dynamics and the interpersonal dynamics associated with that.

For our readers there's a lot new challenges out there.

Challenges provide opportunities to solve problems. There will always be problems and there will always be a need for somebody who's got the guts to step forth and try to deal with the problems that face this country.

The change is that the problems are bigger and different. Now we're stepping into a new phase of development of space. We're talking about space stations, not unmanned space rockets. All the health-type crises, whether it's those driven by

White House Photo



A high level meeting with President Bush in the Oval Office.

fairs. Outside of the government, McClure has served as Government Affairs Staff Vice President of Texas Air Corporation and was a trial lawyer with a Houston law firm.

FFA *New Horizons* interviewed McClure in his office in the West Wing of

AIDS or drugs...with all these problems we're going to need people to talk about, to try to solve the problems, who are willing to do it selflessly.

Let's talk about...your commitment to your philosophy and then your commitment to the man, George Bush.

Well, it's very simple. I probably agree with 90-95 percent of everything that the Republican Party stands for. And the President may fall into the same category. But that makes no difference once the internal decision is made as to what the President's position on an issue is going to be. But, in the advising process, leading up to the decision making, I feel it's my responsibility to provide my views. But once the President has made his decision as to what direction we're going to go, then the only views are his views.

If you had to rank the different things in your life that impact how you approach things now, where would FFA rank?

That's hard to do. I like to think that what I've been lucky enough to do resulted from a collection of everything I've been exposed to. FFA was a major part of my life for seven years and it continues to find its way back into my life from time to time. I spent seven years as an active member of the organization, which I consider to be the formative years of any young person's life, plus the two intense years of traveling across the state of Texas and across the United States. I also went to Panama to the Future Farmers of Panama convention.

When you think about all the time I devoted to the organization, and particularly those two intense years, do I rank that different than my three years in law school, or different from my White House intern summer in '76? Do I rank it with my year as student body president at Texas A & M? It's difficult to make that sort of comparison.

I think that more often than not, we have the ability to build upon past experiences. Given how much of my life I devoted to the organization, I would like to think that it forms a core and you just build on it. I can say it's a fact that if it weren't for that beginning, I probably

would not be doing what I am doing now.

Do you have any advice for FFA members?

My advice to FFA members has not changed in the 17 years since I was a state officer. One must take total advantage of as many of the opportunities as is hu-

but the laboratory training ground that the organization provides—that is difficult to replicate in other organizations. More importantly it's tied to careers and to an industry that continues to need leadership, although I don't want all FFA members running off and being ag leaders. We need some leaders in other areas, too, as well as agriculture. So it's the old giant juicy orange concept—squeeze.

Anything else?

Yes. Before we're done, I'd like to say this: It is so important in my view that we not lose sight that FFA is an organization for students and run by students. Yes, there is the educational element that, of course, requires the guidance of the people in the state education agencies, the federal government, local school districts and school boards.

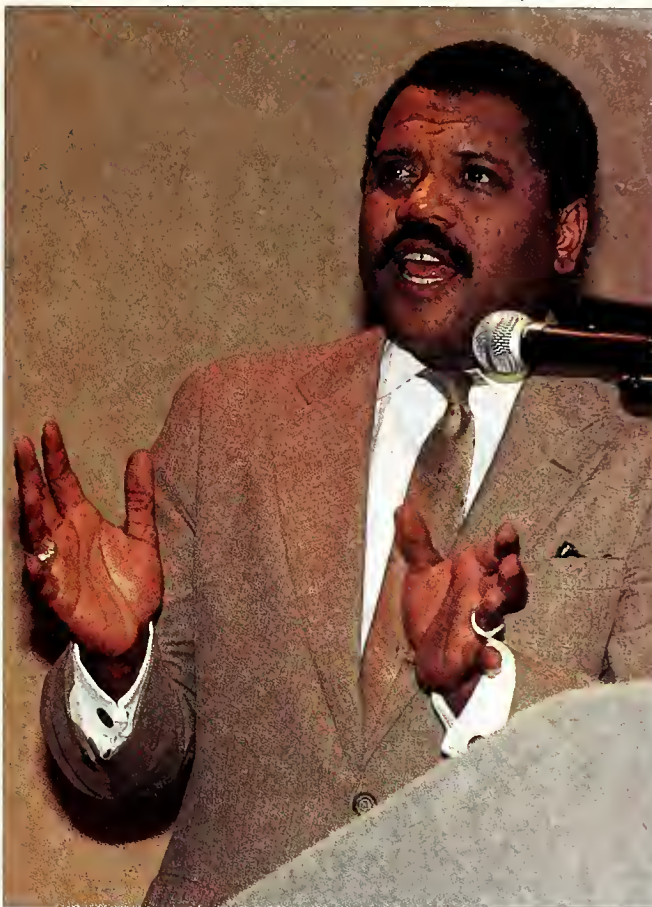
The FFA depends upon teachers and staff for guidance and counseling and all those good things that "Here by the owl" says in the ceremony, but it's important to remember that it's a youth organization. And that 99 times out of 100, if left to their own devices, the students will make the right choices, collectively, in terms of the direction that the organization should be going.

(I'm referring to) the decision to admit girls to the organization back in the late 60s when it took place at the time that it did. The question of whether or not the term "Future Farmers" could be used interchangeably

with "FFA," the changes in the delegates structure—all of the changes that were taking place in my 22 years of association with the organization.

Students left to their own devices ultimately do make the right choices at the right time. It may take two or three years to get to that point. It may take 15 years to get to that point, but ultimately they will make the right choices if they are given a fair assessment of what the pros and cons are. Same thing about back in the joining of the old NFA (New Farmers of America) and the FFA—at the right time, people will make the right choices.

That's why we all need to be mindful and careful of telling the organization what to do as "formers" and be more mindful of helping guide the organization by giving students the information they need to make informed decisions.



Fred McClure

manly possible when they are part of the FFA. I think our theme the year when I was a national officer was "FFA—a Chance for Growth" and the thought was to try to make FFA members aware that there are a lot of opportunities out there and a lot of chances to grow, to become better, but there was a responsibility on the part of the FFA member to reach out and grasp the opportunities and make the most of them.

When I am on the road for FFA doing FFA things, I frequently compare the FFA to a great, giant, juicy orange that one has within one's grasp for a short period, seven years or less. Squeeze from it every drop that you can because the opportunity to be in that training ground is gone forever once that FFA jacket is taken off.

It's not that you don't have other opportunities to grow and to do other things

Photo By Andrew Markwart

Agriculture's New Professionals

Biologist

Get all the experience and education you possibly can," advises Denise Thomson, a biologist at American Cyanamid's Agricultural Research Division in Princeton, New Jersey, and former Allentown, New Jersey, FFA member. She explains, "Even though I grew up and worked on a dairy farm, worked as a summer intern for the New Jersey Department of Agriculture collecting and dissecting gypsy moths, cut roses in a commercial greenhouse, and graduated with a degree in ornamental horticulture, I still have to say that my greatest learning took place after I was hired by Cyanamid."

It's no surprise that Thomson chose a career in agriculture. Her family's history dates back seven generations on the same farm where her father and brothers currently milk 65 Holsteins and farm 200 acres. However, her pathway to success, as with many others, has not always been smooth and easy. For example, although she grew up on a farm and agriculture is now her livelihood, she didn't take agriculture education as a freshman at Allentown High School as her father had done before her. Her guidance counselor advised her to take more "academic" courses. By her sophomore year, however, she enrolled in the agricultural program and, to this day, is glad she did. The top-notch training she received in agricultural classes and the FFA has paved the way for an exciting research career with one of the top agricultural companies in the world.

While enrolled in agricultural education her favorite classes pertained in some way to horticulture. She proved her knowledge in horticulture by being a member of the first place team in the state FFA horticulture judging contest and then went on to place third in the national contest in Kansas City.

She also served as a chapter FFA officer in high school, but she didn't really hone her leadership skills until after entering Delaware Valley College of Science and Agriculture in Doylestown, Pennsylvania. During her freshman year, while majoring in ornamental horticulture, she was elected New Jersey FFA reporter, then served the next year as a regional vice president. While in college and a member of the collegiate FFA, she also received the American Farmer Degree.



Denise Thomson, a biologist at the American Cyanamid Company's Agricultural Research Division, looks at American cockroaches (known as water bugs in the south) kept in the company's insectary. They are used for discovering and developing insecticides.

Although an excellent student at Delaware Valley College with a top summer employment and leadership record, she still didn't land the job of her dreams immediately upon graduation. But, she persevered. Since the time she had taken a field trip to American Cyanamid company's Agricultural Research Division as a high school agriculture student, she aspired to work at the company's 640-acre research campus. "Eventually," she says, "I was hired, but only on a temporary basis."

Denise is now a full-time biologist at American Cyanamid. "The variety of experiences I've had in agriculture," explains Denise, "have all been important to me as a researcher. To do research, you not only must have good, solid, academic training, but you have to understand the products, plants and animals. Probably the most important, though, is to understand how farmers think and what their needs are."

Understanding these dynamics of agriculture has helped Denise more than once while at Cyanamid. Shortly after being hired, Denise worked in the insectary, rearing flies that were used in testing to

develop a cattle insecticide. She chuckles when she thinks of some of the barn flies that persist in her father's dairy barn and wonders if all the science in the world can ever develop an insecticide that will get rid of those pesky flies on a hot, humid summer day.

"That's the challenge of my work," she explains. "I keep hoping that some day we'll understand, not only how to control barn flies, but also gain a better understanding of how to control weeds and insects that rob the profits out of growing food for an ever increasing and demanding population."

"On average, we estimate that it's necessary to screen over 15-20,000 compounds before we discover one that meets the stiff criteria set by ourselves, the regulatory agencies that test our products, and farmers who ultimately use them before they can be further developed into a commercial product. But, reaching for that one, novel, environmentally compatible, more effective product makes it all worthwhile."

"There isn't a better career that I could have chosen anywhere," she explains. ...



Before you start your career,
it pays to learn the ropes.

Making decisions.
Handling responsibility.
Working with others.

In a national survey, more than 850 employers said these are what you must do to succeed in a career. They are also what you have to learn to succeed in the Army.

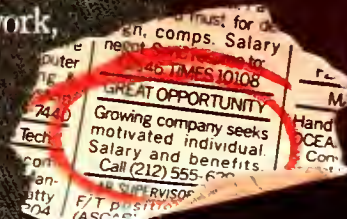
Which makes the Army a good place to prepare yourself for the working world.

And whether you're a member of an air assault team or a tank platoon, you'll be learning teamwork, responsibility, and self-discipline — the qualities employers want their people to have.

So when it's the first day on your new job, your boss won't have to show you the ropes.

Because you'll already know them.

To find out more about how the Army can help give you an edge on a career — and on life — call 1-800-USA-ARMY.



ARMY.
BE ALL YOU CAN BE.

Schuette's Synergy

Synergy \ 'sin-er-je \ n
interaction between
agents such that the
whole is greater than
the sum of its parts.

(Webster)

According to Webster, synergy is the interaction between agents such that the whole is greater than the sum of its parts. Such is the case with Jason Schuette, a 19-year-old from Salem, Illinois, and his employer, Robert Lafenhagen. Their meeting resulted in Schuette being named 1989 central region Placement in Agriculture proficiency award winner.

During the economically stressful 80s, Schuette's parents lost their farm to bankruptcy—the farm Jason had always assumed would be his. At first it seemed his dream of farming was lost, too. Then Schuette's FFA Advisor, Robert Cone, introduced him to the Placement in Agriculture program, a program designed to provide students like Jason with opportunities in production agriculture.

It wasn't long before Schuette became acquainted with Robert Lafenhagen, a local farmer in need of a capable, hard-working employee. Lafenhagen started Schuette as a part-time worker which has since evolved into a full-time position. But the effect that position has had on Lafenhagen's operation is more than just that of an additional employee, the relationship has created synergy. "Mr. Lafenhagen understood my emotional frustration about loving the farm that no longer was mine and channeled it into productivity," Schuette explains.

Lafenhagen owns and operates a 1,600-acre corn, wheat and soybean farm near Salem. When Schuette first began working for him in 1987, Lafenhagen appreciated his style and his attitude. "Jason's a quick study. It doesn't take him long to catch on. I'll show him something once and he's got it," says Lafenhagen.

In addition to earning a valued spot in the operation, Schuette has earned Lafenhagen's trust. "I've never let anyone else I've hired run a combine. Jason, however, I trust. He's to the point now that he does almost everything I do—plants, combines, applies chemicals—he's proven very capable."



Lafenhagen relies on Schuette to make many important decisions, like making sure grain is at the proper moisture level prior to storage.

For his part, Schuette's just glad to have the opportunity to follow his dreams. "I can't think of anything else I'd rather be doing. When I first started, the hours about knocked me over," he recalls. "I'd go to work as soon as I got out of school, get home around midnight, do my lessons and then it would start all over again. The hours are long, but now I'm used to them and I'm willing to put the time in because I enjoy it," Schuette adds.

According to Advisor Cone, Schuette is one of those people who is refreshing to be around. "He has accepted what could have been very damaging to his emotional and physical well being and turned it into a constructive experience," Cone says. "FFA's Placement in Agriculture program gave Jason an area in which to compete, a place to measure himself against his peers."

Bob Seefeldt, FFA awards program specialist, says members must be employed in an agricultural occupation by someone other than a family member and become involved in the operation to be eligible to participate in the placement program. Seefeldt explains, "This program gives those students who have the desire to farm but don't live on a farm an opportunity to become involved and compete for awards. The Placement in Agriculture program provides incentives for these young people to put forth that extra effort and challenge themselves."

When notified that he was the central region winner, Schuette thought it was a

mistake. "I came home for lunch and there was a letter from the National FFA in the mail. I read it twice and couldn't believe it," he says. He immediately went over to his advisor's house to check and received a hearty congratulations from Mr. Cone.

Schuette was recognized as the central region winner and presented with a plaque and \$250 on stage at the National FFA Convention last November. "Being on stage in front of all those people scared me to death," Schuette remarks. "I felt lucky to be up there in the spotlight though."

The Placement in Agriculture program is sponsored by DEKALB Genetics Corporation and LeaseAmerica Corporation through the National FFA Foundation. Bob Pritchard, manager of public relations for DEKALB, says, "We support the placement program because we feel it's important to provide young people who are interested in farming with opportunities to compete and be recognized for their achievements. Agriculture provides many challenging career choices and a bright future for outstanding youth."

As for the future, Schuette plans to become a farm manager. Right now, he's looking for a way to combine his current job and classes to obtain a two-year degree in agricultural business. "I like my job too much to move away to go to school," he says. ...

This article was prepared by Spectrum Communications, Kansas City, Missouri.



The following pages contain important messages regarding environmental issues and the use of crop protection chemicals, brought to you by ACRE and several of our sponsoring companies.

An example of the type of information that is available from ACRE is this list of factors you should consider to determine if your ground water is vulnerable:

Chemical Selection

- Do your ag chemicals bind readily to soil particles and organic matter?
- Do they break down readily in the soil?

Soil Properties

- Is your soil texture porous so large quantities of water move through it rapidly?
- Is the organic matter content sufficient to help bind chemicals?

Site Characteristics

- Is the water table (ground water) shallow?
- Do your fields have sink holes or abandoned wells?

Management Factors

- Are you properly storing, mixing and applying ag chemicals?
- Are you properly rinsing and disposing of chemical containers and equipment rinse water?



To receive free water quality protection information on a monthly basis, call ACRE at 800-545-5410.

ACRE is an organization to encourage environmental stewardship and protect water quality supported by the makers of America's crop protection chemicals.

The Safe Combination

Here's how to protect your food,
your environment and yourself
when
using crop
protection
chemicals



Photos by Andrew Markwart

Different levels of personal protection are required for different agrichemicals. For maximum protection around chemicals labeled DANGER or DANGER-POISON, handlers need to wear a chemical-resistant jumpsuit, respirator, goggles, rubber gloves and boots and a hat. The label on the container will indicate how much personal protection is necessary.

Safe, intelligent handling and application of herbicides, pesticides and other agrichemicals isn't glamorous or glitzy, but it is the first and most vital step in protecting yourself, your environment and the world's food supply. FFA members are literally on the front line of one of the most important social issues of the 1990s.

In order for you to use crop protection chemicals safely, you must follow the rules which are clearly printed on the label. These safety precautions have to be taken when handling, mixing, pouring, applying and transporting these chemicals. For example, all contact with chemical activities require that you use proper equipment and wear protective clothing. *No beach clothes!!* Work on your tan at the beach, but wear long sleeves, long pants, gloves and a respirator when you handle, mix and spray pesticides.

It is our responsibility to help protect others too. For

instance, you need to make sure your little brother or sister, or even your dog, are not running around in a field that has just been sprayed.

You don't want to wash the clothes you wore while applying chemicals with other clothes. It is important to keep clothes which may have pesticides on them separated from the rest of the family laundry. It's like handling snakes. You handle a rattlesnake quite differently from the way you handle a garden snake. In order to do that, however, you must know which is poisonous and which is not.

The label tells you what a chemical is and what it does under a variety of conditions. That's important too. For example, you would never spray a long-lived pesticide on fruits and vegetables the day before harvest. That just makes good sense.

Knowing what to do in case of an emergency is essential. Rule #1 is to *stay cool and use your head*. If you did your homework before you used the chemical, you will know what to do.

For instance, if some of the chemical got in your eye, you would know to flush your eyes with lots and lots of water. If you accidentally spill some on



The most important step in using crop protection chemicals is reading the label. If you have any questions, ask your local agrichemical dealer for help.

the ground, you know whether you should go ahead and clean it up or call state and federal authorities to help you clean it up. There are emergency phone numbers that you can use and in some cases you are

required to call. Do it. It is important to your safety and for the safety of others.

A "restricted use" chemical is clearly marked on the top of the label. All other chemicals are for general use. Bleach and other disinfectants are general use chemicals, but that doesn't mean they



When handling agrichemicals labeled "Caution" or "Warning," growers should wear at least a long-sleeved shirt, rubber gloves, a rubber apron, a hat and a face shield or goggles. Read the label to make sure.

are harmless. For example, if you pour bleach directly on your clothes instead of mixing it first, you can make a hole in your clothes.

To use a "restricted use" chemical (some states call these limited use), you must become certified. Certification means that you can prove that you know what you are doing by passing a test. And it doesn't stop there. Once you are certified, you must get a license to buy a "restricted use" product. To get a fishing or hunting license, all you do is apply and pay your money. You don't have to prove that you know how to fish or hunt, but to get a license to use a restricted use pesticide, you must prove (by being certified) that you know what you are doing.

"Empty" containers actually still have chemical remains, or residue, left in them. They need to be properly rinsed before disposing of them. It is recommended that you triple rinse those empty containers. That's right—three rinsings are needed to get it all out.

So what do you do with leftover chemical? You can't just put it in the refrigerator like you do leftover food, and you can't throw it in the trash. You have a responsibility to dispose of chemicals properly. Follow label directions for each individual product.

Extensive research and development is required for product approval in terms of product effectiveness, environmental impact and safety. The process usually takes from five to seven years. The results

are reviewed over and over to assure that they are correct and acceptable.

The recommended application of any product cannot be less than 100 times the dose that produced negative results in lab animals. One hundred times! That means that there is a huge safety margin before any problem could develop.

The best source for understanding the registration process of pesticides is the booklet, "Agricultural Chemicals: From Laboratory to Commercial Label," published by the National Agricultural Chemicals Association. It outlines the entire process from early research and test-tube screenings, through safety, effectiveness and other experiments, ending with the Environmental Protection Agency (EPA) evaluation and acceptance.

Remember, all of this research and testing are worthless until you read the label.

(Continued on Page 28)



A Chemical Mixing Checklist



Use a "water-only" nurse tank and leave it in the field away from wellheads or other water sources. Transport an empty sprayer to the nurse tank and mix chemicals at the field filling station.



Prevent spray tank overflow by never leaving the filling station unattended.



While filling sprayers, avoid back-siphoning by always keeping the discharge end of fill hoses above the tank's water level.



Be certain pumping equipment has anti-backflow devices and check valves.



Never exceed labeled chemical rates, mix carefully, and calibrate your sprayer before applying crop protection chemicals.



Prevent leftover chemicals by mixing only needed quantities.



Never rinse equipment near wellheads, ditches, streams or other water sources. If needed, install a longer rinse water hose to move the cleaning operation to a safe distance.



Before disposing of chemical containers, triple rinse or pressure rinse them, and pour the liquid into the spray tank.



Dispose of rinse water by spraying it out over the soil. But never rinse spray equipment on high ground where it can contaminate groundwater by running off into wellheads or other water sources.

By Sylvia A Walters, Christina M. Wilson and Peggy D. Hart, PhD

The authors are owners of Agricultural Image Makers, Inc. (AgIM), a firm specializing in telling agriculture's story in easy-to-understand terms.

This information is provided by ACRE. ACRE is an organization to encourage environmental stewardship and protect water quality supported by the makers of crop protection chemicals. To receive FREE monthly information like this call 800-545-5410.

Environmental Safety:

Pesticides, You and Your Environment

You should care for the land and water by following label instructions and knowing about the chemical you are applying and what it does. That means that you cannot stop with just thinking about how the chemical will affect your crop; you must also give consideration to what that chemical will mean to the environment. It is up to the grower, as the ultimate caretaker of the environment, to protect it from unnecessary chemicals, or improper chemical use, in every situation.

The environment is everything around you—surface and underground water, air, soil, other plants, wildlife, domestic animals, and people. Concern for the environment is important to all of us, but you have an even greater interest since *you* are making the application and *you* are the one who is most directly affected by many of the results.

Of the millions of dollars that go into testing a

using any crop protection chemicals. Misuse could result in serious accidents and/or heavy fines. If you want to stay competitive as a grower, you won't abuse your natural resources because you're going to need to use them over and over again.

The first step in developing your environmental responsibility is to just "Look around and think!" There's no better way to decide how to protect the environment. If you're ready for aerial application, check the direction and speed of the wind. What kind of crops may suffer from drift? Are there animals in the area? Is there a body of water in the wind's path? What is the soil type?

It is important to spot danger zones such as open water sources, wetlands, wildlife habitat, highly permeable soils and surface and groundwater flow directions before you spray.

Each farm is different. There are what some people call "danger zones" or "sensitive areas" on each farm. A sensitive area requires that you use common sense as well as the information on the label in order to use a pesticide safely. If there are open water sources, wetlands, wildlife habitat, highly permeable soils, or other similar concerns, you need to take each condition under consideration before you use the chemical. For example, you don't want to mix your chemical close to a well or open water source where you might be risking water contamination. Don't take unnecessary chances.

The Alliance for a Clean Rural Environment (ACRE) provides information that can help you, your family and your neighbors be better stewards of the land and water. The box on page 27 and the ACRE message at the beginning of this special



Before spraying, look around and think. Know what type of soil you have and how close you are to open sources of water.

A smaller container doesn't mean a weaker pesticide. Treat lawn and garden pesticides with the same respect as the field crop pesticides.



product before it is sold, much of this is to determine its environmental effects. Tests are used to determine how long a chemical persists in the environment, how it moves and mixes in water and its impact on wildlife and domestic life both in and out of the water.

When a pesticide is not used according to the directions, all this research money serves little purpose. The label on a pesticide really does have a purpose. It is a legal document which explains the procedures you must follow in order to properly use the product.

Read the label. You can protect yourself and the environment if you read the entire label *before*



(Continued on Page 30)



*From one generation to the next,
farmers have taken care of the
land to preserve their unique
way of life. And for more than
30 years, CIBA-Geigy has
been there with them,
providing products that
farmers need to
produce the best
crops possible.*

Farmers can't control many things that affect their crops. Like weather or the economy. But they can use crop protection chemicals to help control their crops' natural enemies.

We make Dual[®], AAtrex[®], Tilt[®], Ridomil[®], Bicep[®] and other chemicals to do just that. And we've pioneered package designs like the FARM-PAK[®] CS bulk handling system, that reduce exposure in the storage, handling and application of our products.

CIBA-Geigy also was the first ag chemical company to require dealers to use diked storage sites to contain potential leaks and spills. And we continue to look for other ways to make chemicals more effective while encouraging farmers to use them with care and concern for the environment.

So that future generations can lead the kind of life American farmers enjoy today.

CIBA-GEIGY

section are samples of the information available, at no charge, to all interested growers. Anyone wishing to receive free monthly information can do so by calling 800-545-5410.

Most groundwater initially falls as rain or snow. Then it filters down from the soil surface to fill the cracks and spaces below the earth's surface.

Groundwater is never pure. It contains minerals, chemicals and microorganisms. The presence of these materials may be good, or bad, or of no consequence, depending on what it is and how much is in the water.

Crop protection chemicals also have been found in groundwater, most in trace amounts. Usually in that case, the source can be traced to a direct point—accidental spills, back-siphoning into wells, faulty well construction or improper container disposal, rather than from the correct use of crop protection chemicals.

Crop protection chemicals rarely reach groundwater—that is, as long as you use them properly. They can reach groundwater if they are applied improperly, spilled, or if soils are sandy and coarse, if certain hydrogeologic conditions exist, or if a well is improperly constructed or maintained.

You may say to yourself "Sure I'm concerned about the environment, but I also want to stay competitive. I need to make a profit. What are my options?" It just takes a little concern for the environment and common sense to have it both ways—protect the environment *and* produce quality crops.

Again, *read the label*. It's your first source of information. It tells you the performance to expect from your chemical, what environment conditions to be particularly aware of and how to make safe and effective applications. Then "look around and think."

Food Safety:

If I Put Chemicals On My Food When It's In the Field, Is It Safe To Eat When It's On My Plate?

We all want to eat food that is safe, wholesome, delicious and nutritious. *But how can you know that your food is safe?*

Understanding the chemistry part of your science class is how you can find answers right in school. There is nothing magical about the way chemicals act and interact; they simply follow the laws of science.

First, you need to realize that a chemical's mere presence does not automatically mean that there is a hazard to your health.

Think about it. A gun, even a loaded gun is not dangerous until it is fired where it shouldn't be. A car doesn't kill, but a person who misuses the car can make it kill. Water doesn't kill; in fact, it is

essential to life. But if a small amount is obstructing breathing, it too can kill.

The dose makes the poison. That means that the dose, or amount, determines whether its presence is harmful or not. At certain levels, even the most natural and healthy substances are poisonous. Table salt is essential for life, but the amount of salt in a shaker (about two tablespoons) is enough to kill a child. Small amounts of chlorine are added to our drinking water to make it safe from disease and bacteria, but one swallow of pure chlorine could



The United States has the safest, most abundant food supply in the world.

potentially be fatal.

What are the facts about agrichemical safety? What does the scientific data mean?

Our technology for testing residues is so advanced that we can find one part per million or billion or trillion or even sometimes quadrillion, of a substance.

Just 20 years ago, science could measure residues in only parts per million (ppm). Levels up to 999 parts per billion were not detectable, and so they showed up as zero.

Today quantities can be detected in amounts as small as one per trillion. Sometimes, scientists can measure in parts per quadrillion. (That has 15 zeros after it!)

One part per billion is the same as one teaspoon of sugar in enough coffee to fill two Olympic-sized swimming pools.

How much is too much? We just have to look at each substance separately and determine how toxic it is and over a period of time, how long it will continue to show up.

For example, only a few "Clostridium botulinum" microbes in a pound of meat can cause acute food poisoning. On the other hand, relatively large amounts of "good" bacteria are needed to turn milk into cheese.

The good news is that we can detect the presence

(Continued on Page 32)

**HERE'S ONE D.E.T.A.I.L.™ THAT COULD MAKE A
DIFFERENCE TO FUTURE FARMERS**

DETAIL™

PHASE 2

(DEALER ENVIRONMENTAL TRAINING & INFORMATION LIBRARY)

American agriculture is undergoing a major transition in regard to crop protection chemicals and the environment. As future farmers, it's vital that you get all the facts, in order to maximize production and protect our resources. And that's where D.E.T.A.I.L.™ Phase 2 can help.

Developed by Monsanto in cooperation with state chemical associations, D.E.T.A.I.L. Phase 2 is a comprehensive environmental training program consisting of videotapes, support materials and, above all, **information**.



3 TIMELY MODULES

Pesticide Registration: What It Is, How It Works—A review of the complex testing and registration system governing how pesticides are approved for commercial sale.

On-Farm Ag Chemical Safety—A step-by-step approach to assessing on-site safety, planning for emergencies and handling chemicals safely.

Ag Chemical Emergency Response: A Firefighter's Guide—How local agencies can develop management plans for the most frequently encountered ag chemical emergencies.

ALSO AVAILABLE... D.E.T.A.I.L. PHASE I

Four training modules specifically for ag chem dealers and their employees: Ground Water & Agricultural Chemicals; Site Assessment; Safe Chemical Handling & Environment Protection; and Contingency Planning, Your Key To Crisis Management.

**D.E.T.A.I.L. PHASE 2 COULD MAKE A
DIFFERENCE TO YOUR FARM, YOUR
FAMILY ... YOUR FUTURE! FOR MORE
INFORMATION ABOUT D.E.T.A.I.L. PHASE 2,
SEE YOUR CROP PROTECTION
CHEMICALS DEALER, OR CALL TOLL-FREE
1-800-8-DETAIL**

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of a substance and anticipate potential problems in time to correct them. The bad news is that most people over-react to hearing that a substance is present, without really thinking about what it means.

According to the American Council on Health and Science (ACHS), "The advantages to health of maintaining a varied diet, particularly eating more fruits and vegetables, far outweigh the insignificant risks from pesticide residues, if present at all."

Today it seems as though many people want to be guaranteed that there are absolutely no risks in the things they do and consume. Yet risks are a part of everything we do. You take a risk of being in a crash every day when you ride the bus or drive your car to school, yet we ride or drive because of the benefits—the ease and speed in getting to and from school. Do you consider risk when you ride in or drive a car?

Remember the Alar scare last year? During the scare, schools removed apples from the lunchroom and mothers took their babies off apple juice because of the publicity. The EPA, Food and Drug Administration (FDA) and USDA scurried to reassure the public that the food supply was safe. U.S. Surgeon General Koop even issued a statement declaring, "Its okay. Mom, apples are good for your kids."

The scare resulted in overreaction. That in turn resulted in devastation for the apple industry. Now that the scare has subsided, people are wondering where those large, firm, crunchy apples of the past are.

So what about cancer? How does food safety affect cancer rates? Contrary to some people's belief, cancers which could be related to diet are not increasing. Since 1930, U.S. cancer death rates have been stable or declined, with the exception of lung cancer and skin cancer. At the same time, life expectancy has continued to rise. "Americans are leading longer and healthier lives. According to the FDA, the greatest risk we have from food is contamination by microorganisms, such as salmonella, which can make people ill.

The FDA and state regulatory agencies continuously monitor the nation's food supply to guard against unacceptable residue levels. These agencies' inspections show that our food is virtually free of chemical residues. In fact, in those rare cases when residues are found, they are present in tiny amounts, such as one part per million. This means, for example, that in the recent apple scare, a person would have to eat 1,500 pounds of apples or drink 500 gallons of apple juice every day for 70 years to be exposed to enough residue to affect his or her health.

According to the American Council on Health and Science (ACHS), "The advantages to health of maintaining a varied diet, particularly eating more fruits and vegetables, far outweigh the insignificant risks from pesticide residues, if present at all."

The ACHS position is that "there is no scientific

evidence that residues in food from the regulated and approved use of pesticides have ever been the cause of illness or death in either adults or children."

Scientists have discovered that almost all pesticides in food are naturally occurring. Plants produce their own pesticides to try to ward off insects and disease. When plants are under attack from pests and are unprotected by man-made pesticides, they produce their own natural pesticides which can account for as much as 10 percent of the plant's total weight. For instance, an organically grown potato contains some 150 chemicals, including arsenic, alcohols and hydrocarbons. Natural chemicals which have been shown to cause cancer in laboratory animals are present in such common foods as mushrooms, parsley, basil, celery, cola, wine, beer, mustard, peanut butter, bread, lima beans and hundreds of others.

Does all of this mean that natural carcinogens in our food pose a health threat? No. The fact is that the levels of potentially cancer-causing chemicals in food, whether natural or man-made, are so low that they do not pose a health threat. The dose makes the poison.

A recent nutrition letter from the famous Mayo Clinic states, "To an extent, our society is cursed by its own success. We have developed unprecedented control over many of the ravages of life. Some illnesses, such as small pox and polio, are no longer



The Food and Drug Administration and state regulatory agencies continuously monitor the nation's food supply to guard against unacceptable chemical residue levels.

a threat to Americans. Insurance plans and pensions help tide us through transitional periods. Self-help groups flourish in the effort to help us cope with life's challenges."

"But the expectation that every problem can be managed, every risk eliminated, is false and dangerous. In the matter of food, as well as other aspects of life, risk and benefits must be weighed against one another. While there is room for improvement in America's food supply, our conclusion is that, in general, you can feel confident in the safety of what you eat."

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A person wearing a white lab coat over a blue button-down shirt is shown from the chest down. They are holding a miniature, colorful illustration of a farm scene in their cupped hands. The farm scene includes green rolling hills, a red tractor, a red barn, and a small house. Dark brown soil is falling from the person's hands, creating a trail of small clumps down the front of the lab coat. In the background, two pens (one blue, one orange) are visible in a holder.

It takes partnership to work the good earth.

When you see someone from BASF walking up to you, you can already tell a lot about that someone.

He or she is backed by a major U.S. corporation, with worldwide resources, that puts its faith in people solving problems together. This partnership has inspired a long list of answers, from the development in 1909 of anhydrous ammonia to the pioneering of total postemergence weed control in the 1980's.

There's a spirit of innovation at BASF. And it's rooted in the spirit of partnership.


The Spirit of Innovation

BASF Corporation
Chemicals Division

BASF

Pesticides and Technology:

The Science of Pesticides? What Does It Really Mean?



Crop protection chemicals are a vital part of modern agriculture. U.S. agricultural technology has allowed food production to rapidly increase, providing a wholesome, abundant, and affordable food supply for Americans. Chopping weeds with a hoe and handpicking insects was how most early American teenagers spent spring and summer. Schools started late and closed early so young people could work on the farm. It took large families to get all the work done. Today, modern technology means that teenagers can do other things they want to do.


When Abraham Lincoln was President, about 96 percent of all Americans were involved in food production; today only about 2 percent of our population is needed to produce our food supply. One U.S. farm family today feeds 92 people here and abroad, compared to 47 just 15 years ago.

Further, the production, processing, marketing and shipping of the U.S. agricultural products employs millions of Americans beyond the farm, accounting for 22 million jobs—one in five of all jobs in this country.

Crop protection chemicals are a part of this agricultural success story. Scientists estimate that without agricultural chemicals, the world food supply would drop as much as 40 percent and prices would skyrocket. A 40 percent reduction amounts to enough food to feed two billion people, more than the combined populations of China and India—about 4 of every 10 people in the world today!

A recent study estimates that without one class of crop protection chemicals—fungicides—U.S. supplies of fruits and vegetables would drop between 24 percent and 80 percent, depending on the specific crop. Many fruits and vegetables would be almost unavailable here, and the quality of the crops would decline dramatically. Year-round availability would be a thing of the past. Food, feed, fiber, floral and nursery crops would all be severely damaged.

Today's crop protection chemicals, or pesticides, include several classes.



Herbicides protect crops from weeds. Worldwide, crops must compete with 1,800 different weeds. They are a constant and formidable enemy. Above ground, they rob crops of space and sunlight. Below ground, they absorb moisture and mineral elements needed by the crops. They help harmful insect species to live and breed; contaminate and reduce the value of the crops when harvested; and interfere with the operation of machinery. Some weeds are

poisonous to animals, and others aggravate human allergies.

Insecticides help battle the 100,000 species of insects that present danger to man, animals and crops. Millions of lives have been saved by insecticides, through killing of insects, mites, ticks, and fleas, which carry diseases and plagues. Without them, millions would die from malaria, yellow fever and other diseases. Also, billions of dollars of crops would be destroyed by hungry insects.

Fungicides have made a major contribution to the protection of crops and lives. One example is the great Irish Potato Famine, during which nearly a million people died and another million and a half were forced to leave their homeland, due to potato blight. Because crop protection chemicals were not available in the 1840s, Ireland lost nearly 25 percent of its total population in less than six years. Over 17 million Americans of Irish descent owe their presence in this country to the potato blight!

Pesticides are not only of importance for agricultural use, they are used in many ways in urban areas, on lawns, golf courses, parks and other public areas to control weeds and insects; in homes and other buildings to control insects; and in hospitals, restaurants and laboratories to control bacteria and disease.

There are many other ways people use pesticides in their everyday lives from flea collars on their dogs to bleach in the laundry to toilet bowl cleaners in the bathroom. Over 90 percent of American households use pesticides to control pests.

Both government and chemical company scientists are hard at work to develop new crop protection chemicals.

Many exciting developments have been made. Many new crop protection chemicals are applied at very low rates—only a few ounces per acre. These low dose chemicals are very effective, yet environmentally sound.

New herbicides are non-toxic to man and animals because they attack characteristics which only plants have. Discoveries in the area of biotechnology are providing more good news for agriculture, chemicals and the environment. Biotechnological breakthroughs are allowing scientists to produce seeds with built-in weed and disease resistance; crops which are immune to effective yet environmentally safe herbicides; and biopesticides, made from natural substances. New application technology also is helping to make chemicals even safer for those who handle and apply them and for the environment.

Through programs and research in integrated pest management (IPM) and best management practices



When I was President 96 percent of Americans were involved in food production.

Today only 2 percent of our population is needed to produce our food supply.

(Continued on Page 36)



COUNTER IN-FURROW

YOU CAN'T CONTROL THE ENVIRONMENT. YOU CAN HELP PROTECT IT.

No one is more dependent on the environment than the farmer. And you can help protect your environment while you protect your crop...by going in-furrow with COUNTER® systemic insecticide-nematicide.

When applied in a band, most of your insecticide remains on the soil surface. But when you apply COUNTER directly in the seed furrow, you get the most accurate placement possible. And it won't be affected by wind during application, or washed away by heavy rains.

CONSISTENT PERFORMANCE

Banded application can mean poor insecticide

distribution, resulting in inconsistent performance. But applied in-furrow, you know that *all* of your protection is going to work where it's needed most. In the soil with the developing root system.

HIGHER YIELDS

A strong root system means your crop is getting the moisture and nutrients necessary to produce the best possible yields. In fact, National Corn Growers Association yield contest winners have used COUNTER 2-to-1 over any other insecticide.

You can't control the environment. But you can help protect it, your corn crop...and your investment. With COUNTER in-furrow. To order your free in-furrow kit call 1-800-942-0500.

Get COUNTER at your local Cyanamid AgriCenter™ dealer.

Restricted Use Pesticide. Always read and follow label directions carefully.
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(BMPs), scientists, extension educators and crop protection professionals help growers to use chemicals prudently and in combination with mechanical and natural controls.

While the phrases IPM and BMPs have long been used in agriculture, LISA is a recently coined acronym. Many people are wondering just what LISA is, and the term holds different meanings to different people. The letters stand for Low-Input Sustainable Agriculture. Some advocates of LISA contend that modern agriculture is not sustainable, and that producers must reduce off-farm inputs such as pesticides and fertilizers to increase sustainability. They advocate the use of manures and legumes in place of commercial nitrogen and low or no use of crop protection chemicals.

Improvements can certainly be made in how crop protection chemicals and fertilizers are used and managed. Some farmers have found that increasing inputs such as labor and management allows them to reduce other inputs such as crop protection chemicals. Some farmers are reducing the amount of chemicals they use through the scouting for insect infestations, rather than automatic insecticide applications. Others are using more mechanical tillage where erosion is not a

problem. Some are trying new methods of control, such as the "bug vacuum" for insects on lettuce in California.

Each farmer's situation is different, and therefore requires an individual approach to managing inputs and determining how pests will be controlled.

Agronomy professors R.G. Hoeft and E.D. Nafziger define sustainable agriculture as "a management system that uses inputs...both those available as natural resources on the farm and those purchased externally...in the most efficient manner possible to obtain productivity and profitability from a farming

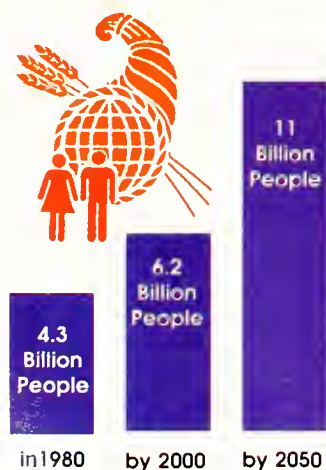
operation, while minimizing adverse effects on the environment."

Basically, sustainable agriculture involves those farming systems that maintain and enhance the ability of U.S. agriculture to meet human and environmental needs now and in the future. It is also a production system that is profitable and competitive within the global economy. It protects the environment by reducing soil erosion from wind and water.



To know more about crop protection chemicals, the Montague, Michigan FFA Chapter arranged for a tour of a local Nor-Am agrichemical plant.

World Food Demand...



It keeps pollutants out of surface and groundwater by employing fertilizer and pest management practices that result in optimum crop response with minimum "spillage".

You are a part of American Agriculture and American Agriculture has a great story to tell! Our agricultural technology has long been the envy of the world. As an industry, agriculture not only feeds America, but millions of others in the world, efficiently, constituting the largest segment of the U.S. economy.

Agricultural producers, scientists and chemical manufacturers are today continuing that success story with a new generation of ability to play a key role in feeding the world, while maintaining our natural resources and protecting the environment. Remember: It is up to you, and only you, to use pesticides safely. Read the label, look around and think. That will help you make the responsible decisions about when and how to use pesticides safely and effectively.



The Stewardship Initiative

"The real products of any year's work are the farmer's mind and the cropland itself . . . the finest growth that cropland can produce is a careful farmer."

— Wendell Berry

The word stewardship means different things to different people. Wendell Berry's quotation eloquently defines a basic quality of stewardship — that of in all ways being a careful farmer. It means putting the long-term quality of the land above the fruits of any one year.

Mr. Berry's words are also subject to debate. Some may argue that the finest product of the land is and always has been food, the fuel that powers all minds everywhere. In fact, it hasn't been too many years since prevailing wisdom called on farmers to go all out to feed an ever-growing world population. Conquering starvation was the 'challenge of the day.'

While that noble goal still has merit, priorities have shifted. Now more than ever, it is important not only to produce the food and fiber needed to feed and clothe the world, but to do so in a way that strikes a balance between the requirements of modern agriculture and the need to protect and preserve our land, environment and personal well-being. That can be accomplished only by "careful farmers" working in concert with partners who share their dedication to stewarding the land and environment.

At Rhône-Poulenc Ag Company, we strive to be one of those partners in stewardship. We firmly believe that a key part of our role in the agricultural industry is to ensure that those involved in production agriculture have the knowledge and the tools necessary to use our products in the most responsible and effective ways possible.

To that end, we have and are continuing to make changes in the way we conduct our business. We have expanded our staff dedicated to product stewardship.



*Thomas M. Dille
President and CEO, Rhône-Poulenc Ag Company
Chairman, National Agricultural Chemicals Association*

We have modified container packaging and labeling to reflect increasing concerns about user and environmental exposure. We have promoted the concept of Best Management Practices throughout the agricultural community.

Rhône-Poulenc has also taken a bold stance in responding to unforeseen circumstances involving its products. We have led the way in working with regulatory officials to develop guidelines for product use in potentially sensitive areas.

Indeed, we have made changes in the way we think and feel about what we do. That is perhaps the most important development of all, for it is the most far-reaching. It affects all segments of our business and reflects changes that will be most lasting.

At Rhône-Poulenc, the Stewardship Initiative forms the core of our commitment to do all we can to ensure that we help our customers use our products in ways that best strike a balance between the needs for food and fiber and the concerns for protecting our land, environment and way of life. We believe that commitment is our finest product.

Thomas M. Dille



Two of a Kind

It's the special mix of competition and cooperation that makes being a twin in FFA double the fun

From the day they are born, twins are special to a community. They go through life, especially in the younger years, being recognized for something in which they had no say.

"It's a blessing and a curse," says Debbie Tschudy of Monroe, Wisconsin. "People from your hometown remember you longer, but they never get your first name right!"



Kirk (left) and Kevin Mathews of Washington Court House, Ohio, both play forward and guard for the varsity basketball team while staying active in the FFA.

Even though Debbie, 18, and her sister, Dawn, are fraternal, not identical twins, they still experience many of the "unexplained phenomena" that surrounds twin siblings. In a normal conversation they finish each other's sentences and often answer questions in unison. When asked about each other's differences, they are hard-pressed to name one.

Twins share a bond unlike any

Dawn (left) and Debbie Tschudy are busy freshmen at the University of Wisconsin-Platteville, but they are still close to their hearts.



Melissa (left) and Monica Owens of Monroe, Georgia, are excited about the Made For Excellence conference they attended this past winter. These high school juniors raise horses for their Supervised Agricultural Experience Program.

other human beings. As one develops, so does the other. And at least in FFA, an ongoing mix of competition and cooperation seems to help the twins excel in reaching their goals. Their FFA accomplishments often parallel each other, whether in leadership, such as holding chapter office, or in skills levels, such as judging contests.

And, unlike many brothers and sisters, twins just seem to get along better with each other. "Dawn's my best friend and I don't know how I would survive without her," says Debbie Tschudy. "We just seem to motivate each other."

...



Tate and Tracy Eck are seniors at Century High School in Bismarck, North Dakota. They're far from identical, but share many of the same interests. Tate is chapter FFA president, Tracy is secretary. They both expect to make the state finals in high school rodeo—Tate in calf and team roping and Tracy in barrel racing.



Angela (l) and Amy Brown of West Bend, Iowa, will be traveling to Europe this summer on a three-week travel seminar for 1989 national FFA proficiency winners. Angela is national Swine Proficiency winner and Amy is the central region Home and Farmstead improvement winner. Amy's name was drawn from a hat when a spot opened up in the tour. She had a one chance in 25 of being picked.



Curt (left) and Chris Klein of the Jetmore, Kansas FFA Chapter have been busy in contests. These juniors have competed in agricultural mechanics and crops, dairy and land judging.



John (left) and Wayne Folmer, 15, of the Socorro FFA Chapter in El Paso, Texas, depend on each other as team ropers in rodeo events.



Stacy (left) and Tracy Sitzer of the Weiner, Arkansas FFA Chapter raise crossbred feeder lambs. The sophomores have been in FFA for two years and Stacy is this year's chapter treasurer.



Two, four, six, eight, who do we appreciate? Advisor Sharon Erickson of the Kenmare, North Dakota FFA Chapter. She has to keep track of four sets of twins, the largest number reported to *FFA New Horizons*. Top to bottom and left to right are: Kyle and Kelly Bauer; Jeff and Jeremy O'Neill; Katie and Pam Rausenberger; and Stacey and Jessica Knutson. These twins come from a school with only about 130 students in grades seven through 12.



Last year, Kirk Fritz (left) served as president of the Flathead FFA Chapter in Kalispell, Montana and his twin, Kevin, served as vice president. Kirk is a state first vice president this year.

Annette (left) and Carrie Eads of the Osceola, Missouri FFA Chapter were so active in their first year as FFA members, they both were named Star Greenhands.



FFA advisor Doug Malone at Norris High School in Firth, Nebraska, has a peculiar situation. He teaches two sets of identical twins, both named Jeff and Jason. Jeff (left) and Jason Helmink, back row, and Jeff (left) and Jason Kubik, front row. The Helmink brothers were part of the Ag Demonstration team this year.



Their theme was "Dress for Success. Mr. Malone says the judges were surprised when Jeff, dressed in blue jeans and flannel shirt, walked behind a screen and Jason emerged in a 3-piece-suit.

Tony (left) and David Boehm of the Mandan, North Dakota FFA Chapter were on the state-winning Meats Judging and Dairy Cattle Judging teams last year.



Potato Planter Perestroika

This Idaho FFA chapter gave new life to old machinery and new hope for Polish potato farmers

By Patricia A. Smith

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

As every FFA member knows, these beautiful and thoughtful words are from the first statement of the FFA Creed.

The true meaning of any creed, however, is not derived from reciting it but from living it, and the FFA chapter in Mackay, Idaho, is doing just that.

In November, 1989, the chapter took on a history-making and news-making project: refurbishing used equipment for potato farmers in Poland.

The idea to offer help to Polish farmers originated with Mackay resident Lin Hintze, a seed potato grower, and his cousin Marx Hintze, a farmer and also an engineer at the Idaho National Engineering Laboratory.

Lin Hintze approached Mackay FFA Chapter advisor and agriculture instructor VerNon Roche with the idea, while Marx Hintze sought support from Repre-

sentative Richard Stallings, D-Idaho.

Congressman Stallings then called Roche to offer his help and to ask if the MacKay FFA Chapter was willing to tackle the project.

"Most of the kids had never seen potato equipment work," recalls Roche with a smile. "But they were willing. The idea is to let the kids do it—that's how they learn."

Brad Lambson, a Mackay High School junior, has been chairman of the potato equipment project. "We had to just learn about it as we went," he explains. "If we took something apart, we had to watch how we took it apart because there were no manuals to show how to put it back together!" Roche adds, "We made sure we always left one assembled at all times so we could go look if we needed to."

It was decided to begin the project with potato planters. "We went out and scoured the countryside for planters," says Roche. Eventually six used planters were located, with four destined for shipment and the remaining two scrapped for parts.

All of the planters were donated by area farmers and most, like the one that belonged to Clyde Lambert, were simply obsolete rather than unusable. Lambert showed FFA members how the planters worked, putting some of his own seed potatoes through a planter to demonstrate and explain the finer points such as spacing of the rows.

Then each planter was completely disassembled and the parts cleaned with solvent or steam-cleaned. A number of

the boxes on the planters had had fertilizer in them which necessitated cutting out the bottoms and rebuilding them.

If a part could not be rebuilt or salvaged from one of the spare planters, Roche and his students would have to try to locate it through used parts dealers. "After 10 years John Deere will send parts to used parts houses," Roche explains. "There weren't any parts for these planters around here anymore; they had to come out of the midwest." Another Mackay farmer, Reed Nielsen rebuilt all of the shoes (furrow openers) on his forge because the students did not have access to one. Roche estimates the Mackay FFA Chapter has used about \$1,000 of their own money for parts and other expenses, but chapter president Monica Pehrson summarized the feelings expressed by chapter members saying, "Our main purpose is helping those people—it's a gift."

Lastly, the planters were reassembled, greased and painted in their original colors with paint and parts donated by Rocky Mt. Machinery in Blackfoot, Demott Tractor in Idaho Falls, Mackay Equipment, Tri-county Supply and Wall, Inc. in Mackay, Sheehan's Welding Supply in Idaho Falls and Federal Surplus Property of Idaho.

Potato planting in Poland begins in April, and shipping time was estimated at a minimum of 30 days. Transportation is being provided by Morrison Knudsen, a Boise-based company. Therefore the stu-



Photo by Terry Towles/Mackay Yearbook

The refurbished 1950's potato planters will arrive in Poland in time for spring planting. Much of the planting in the past has been done by hand.



Six potato planters were donated by local growers. Four were refurbished, two were used for parts. Here, Mackay FFA members work on one of the donated planters in the school's shop.

Photo by [unclear] LaOrange/Post Register

(Continued on Page 42)



We Deliver Research, Quality and Commitment by the Ton.

Pfizer sells more animal health products worldwide than any other pharmaceutical company. A large part of that success is a leading position in America's feed additive industry—which has been possible due to a strong corporate commitment to research, quality and the feed industry.

RESEARCH.

Pfizer Inc. invests over \$400 million annually in worldwide research. A significant portion goes to animal health research to discover new products and to develop new uses for existing ones. As a result, a wide range of Pfizer products is available for the feed industry. Ultimately, these Pfizer

efforts increase animal performance, which means added profitability and convenience for livestock producers.

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Performance, safety and efficacy are ingredients found in every Pfizer product. We make sure of it by conducting exhaustive tests at our own research farms, followed by state-of-the-art manufacturing and extensive quality assurance testing.

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Potato Planters

dents in the FFA chapter worked hard to accomplish the task in time, coming in on Saturdays, noon hours and free hours during the day. On Monday, February 12, the finished planters were loaded on a truck for delivery to an eastern port, where they will leave the United States for Poland.

"My planter works good now," remarked Clyde Lambert when he inspected the completed work. "In 1956 this was modern machinery, and we were so happy to get it. I don't have use for it anymore because we've gone to bigger machinery, and if it'll help those people in Poland, I think it's a real good thing to do."

Lin Hintze tries to describe just how



Left to right, Valerie Lord, Mindi Pehrson, Monica Pehrson and Sherry Roche are interviewed by a reporter from television station KIFI Channel 8.



Boxes containing extra parts, grease guns and John Deere hats, donated by various business, are ready for shipment.

Congressman Richard Stallings joined the FFA chapter in Idaho Falls for a press conference on the day the potato planters began their journey to Poland.



much help it will be to the Polish people: "It's starting with the basics—they have no potato cellars, no combines. They plant and dig mostly by hand." In other words, a Polish potato farmer will be just as happy in 1990 to get a potato planter as his American counterpart was in 1956 to get the same planter.

And the project is by no means ended. The Mackay FFA chapter hopes to refurbish four potato diggers and send to Poland by the end of the year. It is also hoped that an American potato farmer and possibly a student from the Mackay chapter can go to Poland to help educate the people

about the use of the equipment and to share farming experience and methods.

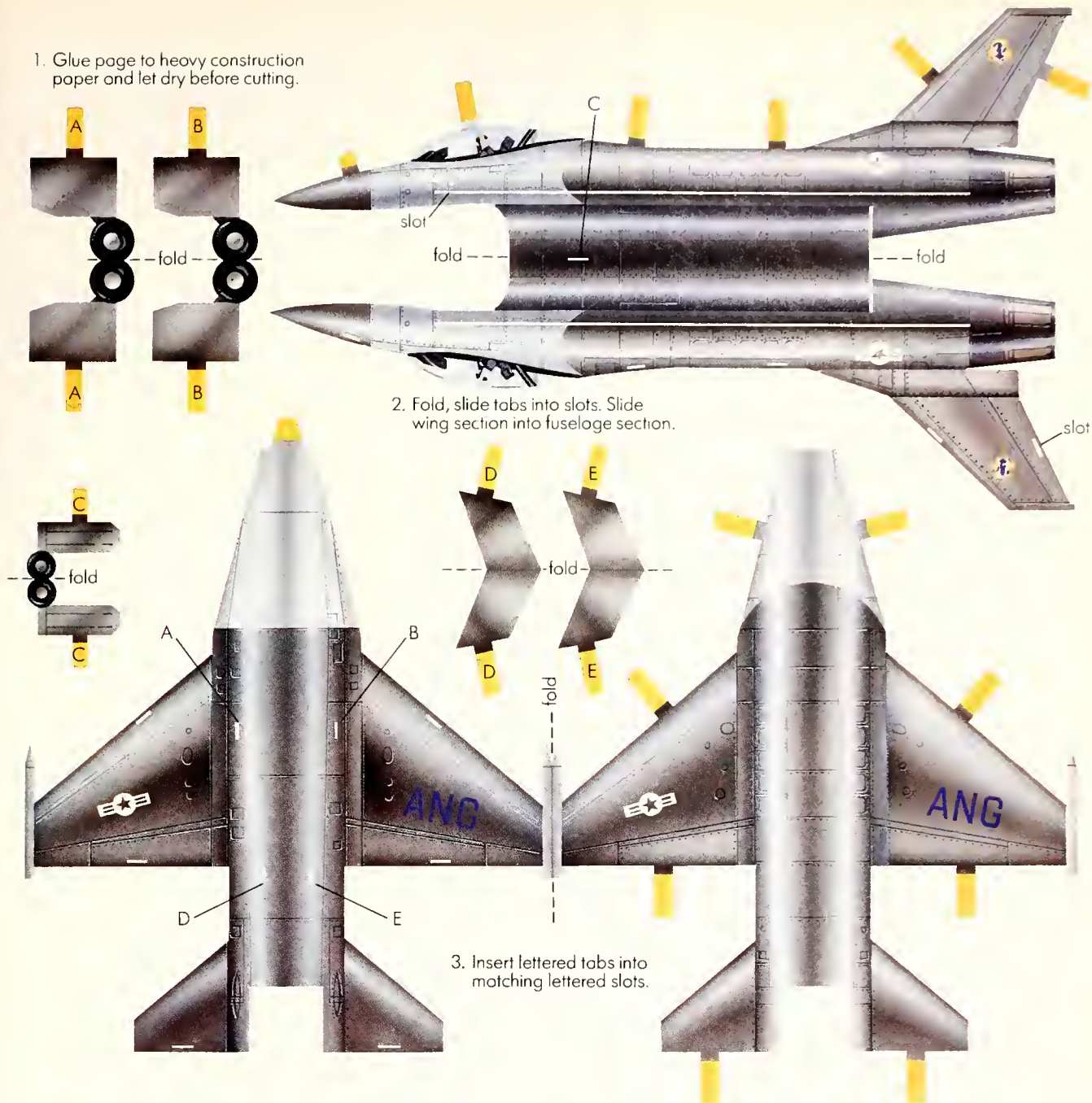
The students are quick to point out that this project came about through the idea and efforts of Lin and Marx Hintze, and was made possible because of the support and help of Congressman Stallings, numerous government officials both here and in Poland, companies such as Sheehan's and John Deere and Morrison Knudsen, and especially the Mackay community.

"You always have a tendency to bite off more than you can chew," notes Roche. "But this community has helped us get it done." His daughter, Sherry Jo Roche, who is vice president of the Mackay FFA chapter, says, "I think the reason our FFA chapter works is because of the adults who help us, because of the community support."

In discussing the potato equipment project, perhaps Ms. Roche best expresses the attitude of the Mackay FFA students: "We have shirts on our backs, and food in our stomachs. Those people have been oppressed for so long, it must be hard to get their dreams in focus. We want to help them have the same chances we do."

These young people have clearly shown their belief in the future of farming, with a faith born not of words but of deeds. One day the last statement of the FFA Creed might be changed to read, "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 and world which will stand solid for my part in that inspiring task."

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Americans At Their Best.

FFA Leadership Skills... for Life

Here are five examples of how leadership skills learned in FFA can be used in any career

By Molly Wilson

While no FFA records show it, many FFA members end up in non-agricultural jobs. But that doesn't mean the skills you learn during these years are wasted.

"The training and skills I received in FFA are usable in any aspect of life," says former FFA member Joel Brandvold, of Tolley, North Dakota. "You need people skills wherever you go or in whatever you do. I can't think of a job where you don't need people skills."

For Brandvold, who grew up on a 480-acre dairy farm, the decision to work outside agriculture didn't come easy. As long as he could remember he wanted to teach agriculture. But he also wanted to serve the church and work with young people as a pastor.

"It came down to college graduation day and I had to decide: should I go on to the seminary or back to college for one more year so I could teach vocational agriculture?" recalls Brandvold, a former state FFA president.

Brandvold, now 29, decided to become a pastor. And although it's a long way from milking cows to shepherding three congregations and 200 members, Brandvold still finds his FFA background valuable.

FFA, Brandvold says, helped him feel comfortable in front of groups — an important quality in the ministry. From the pulpit to parishioners' homes, Brandvold has found many ways to apply his FFA experiences.

"The early training I had in FFA helped me become a better organized person on the job. FFA stressed recordkeeping, and records are so important in a Church."

But parliamentary procedure was the most important skill FFA taught him, says Brandvold. "I use it every day. I'm able to run meetings more effectively because of the skills I developed. As a pastor, I organize activities and events, and I keep a three-minute binder with parliamentary procedure instructions handy."

"People view a pastor as a fireman, and in an emergency situation people turn to their pastor looking for an immediate response. They depend on my response

and on my advice," he adds. "Running for a state FFA office was great training — teaching me to think on my feet. As a pastor you often have to do that."

And his background as a farmer, helps him relate better to his congregation, who are mostly rural citizens, says Brandvold. "Sometimes when I go to visit a member of the congregation, rather than interrupt their work I join them."

FFA skills can apply to even the most unusual occupations — as Clay McGuire can attest. A former Arizona state vice president 10 years ago, McGuire decided

to leave agriculture after much deliberation. "My ultimate desire was to have my own pig farm in New Mexico," he says. "But ever since I was a kid I had a curiosity about what funeral directors did."

McGuire eventually became a licensed funeral director and embalmer. "But I took my FFA skills with me into my profession," he adds, noting ironically: "FFA teaches skills for life."

"The vocational agriculture classes are the only place to learn record keeping, public speaking, or management skills in high school. The FFA taught me skills to

FFA Leads the Way For Air Force Sergeant

By 2Lt Kimberly S. Coleman

Staff Sergeant Jimmy Dean Cornelius knows teamwork. He has developed a keen sense of it over the years. His high school involvement in FFA and his current status as a security police specialist



Staff Sergeant Jimmy Dean Cornelius

are where his experience as a team player are most apparent.

He vividly recalls FFA high school experiences in Clarksville, Texas, where comradery and teamwork were the norm. "If somebody in the group was behind on their project, everybody would just pitch in to help," said Cornelius.

In high school he served as chapter vice president, was on the parliamentary procedure team and poultry judg-

ing team.

Currently he is in charge of Resources Protection and Crime Prevention at Randolph Air Force Base in San Antonio, Texas. He holds demonstrations on self-defense, such as how to break an assaulter's grip and how items carried in a woman's purse can be used as weapons.

He also makes appearances at local schools to teach assault and rape prevention, "stranger danger", for the younger children and drug abuse prevention.

"I love working with people and kids—if you can prevent just one kid from taking drugs or being kidnapped, then it's all worth it," he said.

Some of his fondest memories were recently rekindled when his own children were going through some boxes and found his blue high school FFA jacket.

"I thought it was great the way they were interested...I'm going to encourage my son and daughter to join," he said.

"I remember when I went to the state convention in high school, I felt a sense of pride just seeing several thousand FFA members in their blue jackets and ties and knowing we all had a common bond," said the former flight chief who has been in the Air Force for ten years.

use in all aspects of life. These are skills I could take with me in any field and have a head start on the game," says McGuire, who manages Menke Funeral Home in Sun City, Arizona.

"It can be tough working with people at such a difficult time in their lives. But the extemporaneous speaking contests made me use my brain. Those contests helped me to think things through, thoroughly and quickly."

Tommy Siler, a former Mississippi state FFA officer, says he changed his mind several times before deciding to become a lawyer.

"The FFA taught me social graces—social skills that will be with me throughout my career," he says. "We were taught to appear confident. It's the leadership skills that I've never forgotten."



Joel Brandvold

Based on his experiences Siler recommends attending college—no matter what you think you want to do for a living now.

"It's amazing how you will change as you grow up and how your interests will change," he says. "You may think you know just what you want to do for the rest of your life when you're 17 or 18, but the real trick is to give yourself the opportunity to do as many things as possible."

But it was first hand experience, not college, that helped Brian Thomas better understand his career options. His family's dairy farm in Bruceton Mills, West Virginia, allowed him to sample agriculture as a career. But in the back of his mind, he figured something else was in his future.

"My family owned and operated small businesses, so I got to see first hand both farming and other businesses outside agriculture," says the former state FFA president, now a vice president at Bruce-ton Bank."

"The things I learned in FFA and as a state officer really apply to business every day: cooperating with people, being a leader, public speaking, and organizational skills," says Thomas, who is currently heading up a team effort to open a bank branch inside a supermarket.

"It's no secret that the success of a team depends on their ability to work together."

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CHAPTER SCOOP

In order for someone in the **Glide**, Oregon, FFA to be named member-of-the-month, they must have done something during the month that requires them to use their own spare time.



Bremen, Indiana, organized a scarecrow contest for Oktoberfest. Entries were displayed at the park and prizes given to scariest and best.

Bristol, Massachusetts, FFA organized a rope jumping marathon for the Heart Association.

Snohomish, Washington, members are conducting tissue culture experiments with carrots. The work is done inside a lab members constructed themselves.

Dell Rapids, South Dakota, FFA helped out at the town's farm and home show by making pancakes for over 1,500.

During FFA Week, **Siloam Springs**, Arkansas, Chapter had a dance sponsored by the Alumni. Profits went to feed hungry children in the area.

To celebrate Arbor Day, **Lake Weir**, Florida, Chapter gave away Sand Pine seedlings at the shopping mall.

Delta, Colorado, members worked with Thunder Mountain Lives Tonight to build signs for their outdoor drama this summer.

Last year the **St. Helens**, Oregon, FFA raised pumpkins, took them to the grade schools and helped students carve jack-o-lanterns.

In the invitation to the **Liberty**, Oklahoma, FFA children's barnyard, they specifically included day care centers and senior citizen groups.

John Schut, vice president of **Hopkins**, Michigan, FFA, wrote that the chapter bought 16 lambs. Some were sold to members, and the rest kept at the FFA livestock building. Profits from the lambs will be used for chapter travel expenses.

Gilmer County, West Virginia, national convention delegates traveled to Kansas City in the FFA van purchased for the chapter by the local Alumni affiliate.

Heather Stone wrote about the 30-minute FFA hosted television show highlighting local **Jet-Nash**, Oklahoma, chapter activities.

Bennington, Oklahoma, FFA members worked side by side with the firemen to build an addition to firehouse for storing equipment. The FFA got a grant for \$400 from the state's rural rehabilitation group; and the fire department matched it.

When **Weston-McEwen**, Oregon, FFA ended their annual canned food drive in the town of 1,000, they had collected over 5,000 cans for the service project.

Greenhands from **Gilroy**, California, Chapter held a bowl-a-thon to raise money for their FFA jackets.



Frequently newspapers confuse the letters FFA and FAA. It happened in the **Yuma Daily Sun** in Arizona. This time it was actually a story about the aviation administration, but the title was "Yuma Airport Project Get \$1 Million from FFA."

The whole **Northern Burlington**, New Jersey, Senior chapter was on hand for the Greenhand ceremony for 10 new degree recipients.

Norfolk, Massachusetts, members brought animals to the preschool class to teach them the source of meat and milk.

Travelers Rest, South Carolina, FFA has signed a cooperative agreement with a local apple orchard. FFA members will prune, spray and replace trees as well as pick the crop on the 18 acre orchard. Chapter gets 25 percent of the crop to sell or make into cider.



For their school homecoming, the **Oakley**, Kansas, FFA sponsored an ugly pickup contest. Categories included rustiest, most dented, oldest that runs, loudest, and sharpest paint job. The 15 entrees got to drive in the homecoming parade as the FFA entry.

Sales projects of **Washington Park**, Ohio, FFA in Cleveland varied depending upon the interests of the members. The horticulture members made arrangements and sold poinsettias. The food processing members assembled 700 holiday fruit baskets. (They had bought citrus from Florida and apples from Washington.) The small animal care class sold items for pets.

New dugouts for baseball fields in **Artesian**, South Dakota, were built by FFA.

Riverton, Wyoming, FFA held a winter outing in the Rocky Mountains to cut Christmas trees and play in the snow.

Chapter Scoop items are always needed, so keep the mailbox full. Don't just write a few lines, jot down as much as you can about the project, activity, meal, award. We might get an idea for a feature story that way. It happens a lot.

Continue the FFA Spirit

In many ways, senior Patty Rupell is a typical Delaware Valley College student. She is bright, articulate and involved in a number of activities, including Future Farmers of America. Patty, who is president of DelVal's FFA chapter, believes strongly in the FFA philosophy and thinks high school students should be encouraged to pursue an agricultural education if they so choose.

But after graduating from Warren Hills Regional High School in New Jersey a couple of years ago, Patty wasn't sure if she would be able to continue her association with FFA in college. When she got to DelVal, however, she found out differently. FFA is alive and well at DelVal!

Patty's major is Ornamental Horticulture with an emphasis on floriculture. But DelVal's FFA chapter is represented by all seven agriculture majors: Agronomy and Environmental Science, Agribusiness, Animal Science, Dairy Science, Food Science and Management, and Horticulture. Everyone pitches in together on projects.

Being associated with FFA is just one way Patty has gotten a great education at DelVal. Her professors are friendly and easy to talk to. They treat her as an individual, not just another face in the crowd.

Her classes are small, sometimes with only four or five other students. One day she's in the classroom discussing theory. And the next day she's out in the field putting that theory to work.



Patty Rupell is president of Delaware Valley College's FFA chapter.

Besides classes and FFA, Patty is into a lot of other activities at DelVal. She's a member of the Floral Society and Delta Tau Alpha, the national agriculture honor society. And she's a member of the College's National AgriMarketing Association chapter. By being in these organizations, Patty has learned a lot and met many people who will probably help her after graduation.

By the way, DelVal grads are really in demand. For example, every member of the Class of 1986 was employed or enrolled in graduate school within six months of graduation. The number for the Class of 1987 were just as impressive. Quite a few recent graduates are already pursuing interesting careers in the wide open agriculture industry.

Pretty soon, Patty is going to join the ranks of DelVal grads. She may go on to graduate school. Or she may get her teaching certificate. Or she may start on her career right away. Whatever option she chooses, a DelVal education will definitely help her reach her goals.

You can continue the FFA spirit and get a great education at DelVal. Just fill out the coupon below and mail it to the Office of Admissions. Or call DelVal at (215) 345-1500, Ext. 2211 for more information.

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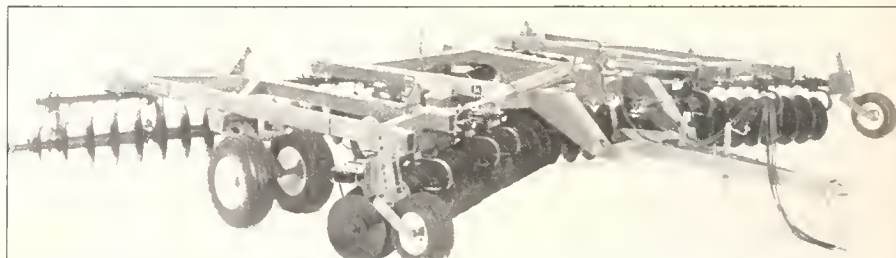
The Gehl Company introduces models 1470 and 1870 variable chamber round balers. These balers feature Total Density Control (TDC) to give the operator complete control over the size and density of each bale. Air pressure regulates the size of the bale core and hydraulic pressure controls the density of the outer bale wrap.



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Chip Off the Old Wall

FFA members get a chunk of history in Berlin during International Greenweek

Sixteen FFA members took hammers and chisels and chipped away pieces of the Berlin Wall to take home as souvenirs of their trip to Berlin and the International Greenweek exposition, held January 26 - February 7.

Defacing historic structures is not normally encouraged by FFA tour guides on international trips, but since the opening of the Wall in November, people from around the world have been collecting pieces of concrete from the Wall before it is dismantled by the East and West German governments.

Like the Wall, the barriers to rejoining East and West Germany are being chipped away by both governments and some Germans are predicting a unified country by the end of this year.



State officers Thea Slack, Wyoming and Scott Jordan, Georgia, hammer down.

An example of the newfound freedoms East Germans are experiencing is that they were allowed, for the first time since Germany was divided after World

War II, to meet with representatives of over 50 countries at the International Greenweek activities in West Berlin. The exposition showcases regional agriculture products from the various countries.

Greenweek was the first stop on a 12-day tour for the FFA members. According to Mary Hendrickson, FFA International Department intern, "Greenweek allowed the FFA members the opportunity to form new friendships, gain an appreciation of international agriculture and understand the need for continued contact with agriculturalists in other countries."

The FFA group consisted of mostly state officers from Alaska, Georgia, Idaho, Maryland, Missouri, Ohio, Virginia, Wisconsin and Wyoming.

Along with gathering souvenirs of the Wall, the FFA members visited East Berlin and the famous entrances to that city, Check Point Charlie and the Brandenburg Gate.

The Group also traveled to southern Germany to visit experimental farms at a university, meet with a young farmers group and stay with host families. The young farmers took FFA members on tours of agricultural operations, local festivals and a trip to Salzburg, Austria.

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FFA IN ACTION

Ohio

Shoppers Awareness

The Talawanda, Ohio, Chapter conducts an annual small animal display at Fountain Square in downtown Cincinnati in November.

Several hundred shoppers and children saw the display which included pigs, sheep, a calf, a goat, rabbits, chickens, a ferret and even a "snipe."

The FFA sponsors this display each year with the cooperation of the Downtown Council in order that people may get a chance to see live farm animals and ask any question they might have about the animals or the FFA. The display this year was again part of the Festival of Lights. (Diana Mahlerwein, Reporter)

Oklahoma

Fitness, Facts—and Fun!

"Nutrition isn't something teens normally get excited about," admits Amy Belcher, reporter for the Chandler High, Oklahoma, FFA chapter. "We tried to give it a new twist."

A new twist, stir and shake! The Chandler FFA recently joined forces with the school's FFA and Technology Student Association chapters to create what they hoped was the world's largest malt.

The 220-gallon treat, mixed at a home football game, gained plenty of attention for FFA nutrition awareness efforts. The mayor proclaimed "Dairy Drink Week," several newspapers covered the event and over 1,100 football fans drank free malts.

The organizations have submitted their information to the *Guinness Book of World Records* for making the "malt" in a stainless steel vat from a local dairy.

"We wanted to do something everyone would remember," says Amy, "It was fun."

The project was part of a program called Student Body, an FFA/HERO program for helping teens be fit, eat right and feel good about themselves. Student Body is sponsored by Kraft, Inc. and the National Dairy Board. (From "Teen Times"—National Magazine of Future Homemakers of America.)

Idaho

Horse'n Around

The Genesee, Idaho, FFA chapter was trying to raise money for their two teams (forestry and poultry) to compete at the 62nd national FFA convention. This was the first time teams from Genesee had ever participated in a national contest. This fund raising idea developed at an officer's retreat in June.

A show bill of playday events for 4-H, FFA, and saddle club groups was developed. It consisted of 11 individual events and four team events with different age groups. A personal invitation along with the show bill were sent to individuals. Ads, signs and show bills were placed in other towns and locally.

The Genesee Rim Rider's Saddle Club helped by letting FFA use their arena. The FFA members prepared for the show and worked at various jobs throughout the day.

The local feed mill, Genesee Union Warehouse, made a special batch of horse feed. FFA members bagged feed from the mixer into recycled grocery bags in 20, 10 and 5 pound increments for prizes for the events. A brightly colored paper ribbon was stapled to the outside of the bag depicting the award.

The all around winners in each age group received a 50 pound bag of special horse feed. High point trophies were given to the high 4-H group, FFA chapter, and saddle club. These were donated by the Buzzard's Roost Trophy Mfg. at Clarkia, Idaho.

Some individual events were: barrel racing, flag race, balloon race, arena race, goat tail undecorating, bubble gum race,

Maryland

Ceremonial Crowd

President George Bush invited 160 FFA members to be present on the White House lawn for the ceremonies honoring the arrival of His Excellency, Denis Sassou-Nguesso, president of The People's Republic of the Congo and Mrs. Sassou-Nguesso. Chapters from Maryland able to accept the invitation on Monday, February 12, 1990, were Hereford, Hereford Middle, Ridgeview Junior, Linganore, Frederick, North Harford, Frederick Vo-Tech, and Gaithersburg.



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boot race, pole bending, musical hats, key race and western jumping. The team events were egg spoon race, ribbon race, rescue race, and straw stacking. It was stressed that not everyone needed a horse to participate. The adults as well as the kids had a ball doing the events, cheering and laughing.

The end result was a \$650 profit for the chapter and lots of enthusiasm to make it an annual fund raiser for the chapter by all the FFA members. (Eric Falen)

Missouri

Floral Homecoming



After the Hermann, Missouri, floriculture team won first place honors at the 1989 National Convention, they were in for a treat from their fellow FFA members when the team arrived home. Team members Susan Bader, Tammy Bruckerhoff and Brenda Koelling were recognized at their high school with a special assembly, complete with the mayor giving them a proclamation, and letters of acclaim from the school board. Community supporters also hosted a dinner in their honor with over 150 family members, community leaders and guests present. The community support for these young women was impressive, and the achievement was something they will never forget. (Ramona Schescke, Advisor)

Missouri

Network News Makers

Keytesville, Missouri, FFA members John Kussman, Tanisha Blanton and Brad Russell were interviewed by ABC News when the news team interviewed seniors

(Continued on Page 52)



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FFA IN ACTION

(Continued from Page 51)

in their school. Each is a chapter officer.

An ABC News team from Washington, D.C. traveled to Keytesville on Thursday, January 4 to talk to the seniors about the happenings in eastern Europe.

The news team was conducting interviews in three United States high schools. They chose an urban school in Washington, D.C., a suburban school in Los Angeles and Keytesville to represent the rural schools. Keytesville was their first stop.

The interviews aired on the news portion of Good Morning America February 5. Two Keytesville seniors made the cut—John Kussman from FFA and Jill Jackson from FFA. (Amy Miller)

Texas

Chapter Characters



Yselta FFA Chapter in El Paso, Texas, helped the zoo raise money for renovation by selling concessions. Members dressed up as cartoon characters to meet children who visited the zoo.

Illinois

Scholastic Sightseers

Amboy, Illinois, Chapter offers a reward trip to any FFA member that either receives an A in an agriculture class or is on the school honor roll for any one grading period. This year winners went to the John Deere Historical Site in Grand Detour and 46 members qualified.

One of the main activities in scholarship is to encourage members to meet qualifications for the State FFA Degree since this degree carries a scholarship requirement that must be met. To encourage members to become eligible for the award, the chapter presents scholarship



Winners of the scholarship tour saw antique farm implements and hand tools.

pins to four members each year. One student per class is presented the award at the chapter banquet. To win this award, the student must have the highest grade point average of any FFA member in their class.

Members are kept up to date on their placement throughout the course of the year. Each nine weeks, an FFA honor roll is posted in the ag room with the current holder of the highest grade point average circled in red. Any member may determine his/her grade point average at any time by checking in the school office. Members are encouraged to do so after each grading period. Members are first informed of this award as Greenhands.



"We're obviously incompatible! I have an IBM Work Station and yours is just a Macintosh!"

Indiana

Dirty Dancin'



The Tri-County FFA in Wolcott, Indiana, held a mud volleyball tournament in September behind the school. Eight teams participated in the mud flinging event in the spirit of homecoming week. The chapter did the set-up work and organized the teams.

Mississippi

On the Road Again



The Stone County Chapter of Wiggins, Mississippi, is one of the first organizations of the county to participate in the Adopt-A-Highway Program. FFA covers a two mile stretch of Highway 26 which runs through the city. (Richard Dixon, Reporter)



MY TURN

.....



Donnell Brown

"Take an interest in the future because the future is where we will spend the rest of our lives."

We all live in a country that is free, democratic and superior in agriculture. We continue to discover it more as we live it daily and I've come to love it in every way.

Each and every FFA member shares three common goals—to develop agricultural leadership, citizenship and cooperation. I am an FFA member because I believe in the future of this organization. I realize the positive impact it can make on all who become involved.

After returning from our recent tour of Japan and China, I realized how lucky we really are to live in the most agriculturally superior country in the world. It is comforting to know that we don't have to import over half of our food, like they do in Japan, or use water buffalo to pull a plow as they do in China. However, we must strive to improve our education in agriculture if we plan to stay on top in the future.

How do we do it? We become *active* FFA members. We must strive each day to improve our organization by setting and achieving goals, becoming more involved, and continually recruiting more students to enroll in our agriculture classes. Ask your advisor how you can help. This will allow the FFA to "Lead the Challenge" in agriculture through the 1990s and into the 21st Century.

Our world population is expected to double by the year 2020. Today, we have 10 percent of the jobs in U.S. agriculture going unfilled because we don't have

enough qualified people to fill those positions. The entire world is depending on progressive agriculturalists to provide high quality food and fiber for the survival of our entire civilization. What does this tell us? There is a very bright future in agriculture and we need more FFA members "Leading the Challenge" today because tomorrow will be too late.

Dr. Denis Waitley, says, "Life is a 'Do it with God-for others-to ourselves-project,' and we will only get out of life what we put into it." This reaffirms my belief in the biblical statement "As you sow, also shall you reap." We only get out of the FFA what we put into it. Therefore, I challenge you to take an active role through the FFA in developing a positive future for ourselves because the future is where we will spend the rest of our lives.

It is great to see FFA members who take an active part in our organization by participating in meetings, conferences, conventions and contests as well as numerous other local, state and national events. Time and time again the results are the same—success. For example, read the article about Fred McClure on page 18. He and other leaders like him help make this organization great. Now, together, it is our turn to decide the destiny of the National FFA Organization and assist in shaping the agricultural industry of the future.

Be more than a member—take an active part in FFA because the best is yet to come! Live it and believe it...I do! Don't you? ...

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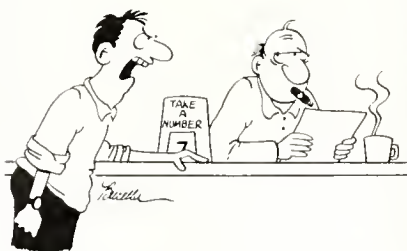
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J O K E P A G E

Baby Firefly: Mama, I can't see Papa anywhere.
Mother Firefly: Of course you can't see him. He went out.

Jenny Stancil
DeQueen, Arkansas

ERNIE'S TRACTOR REPAIR



"It's working like a clock. It sits in one spot and spins."

Teacher: Has anyone ever seen the Cat-skill Mountains?

Ed: No, but I've seen the cats kill mice!
Jason Draime
Stryker, Ohio

There was a group of people named trids who lived on a mountain. One day a giant climbed up the mountain and kicked the trids off. They climbed back up but the giant kicked them back down.

Then one day a preacher came and asked the trids what was wrong. One of the trids said, "A giant kicked us down our mountain."

The preacher said, "Let me go up with you, surely he'll respect me and won't kick me down the mountain."

The trids agreed and they all climbed up the mountain. When they got to the top, the giant kicked the trids down, but not the preacher. He asked the giant "Why did you kick the trids down, but not me?" The giant answered, "Don't be silly, kicks are for trids."

Julie Febus
Buffalo, Illinois

Two mice captured an elephant, and the first mouse said to the second one, "Guard the elephant while I go get help." When he got back, the elephant was gone.

"Where's the elephant?" the first mouse asked.

"I don't know" the second mouse said.

"Oh, don't lie to me!" the first mouse exploded furiously. "I can see you're still chewing."

Bobbie Mae Cooley
Bowen, Illinois

Rob and Bob were at camp, and one night Rob sprayed his arms with bug repellent.

The next morning Rob said, "My watch isn't working."

"Maybe," Bob replied, "you killed all the ticks."

Mario Lopez
Carson, California

Q: What happens when you don't pay your exorcist?

A: You get repossessed.

Scott Sayer
Brownsville, Oregon

Critic: Is this one of your silly-looking paintings?

Painter: No. It's a mirror.

Mario Lopez
Carson, California

Chef #1: How do you make an egg roll?

Chef #2: Push it.

Mario Lopez
Carson, California

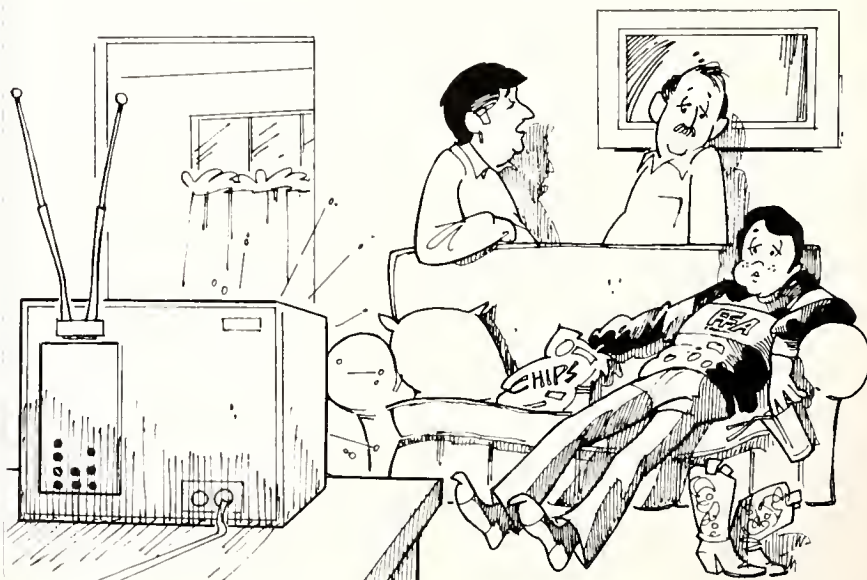
Paul: Jason, I have a girlfriend with one leg shorter than the other.

Jason: You do? What's her name?

Paul: Ilene.

Becky King
Bastrop, Texas

Charlie, the Greenhand



"I don't raise potatoes anymore, unless you count my son, the couch potato."

NOTICE:

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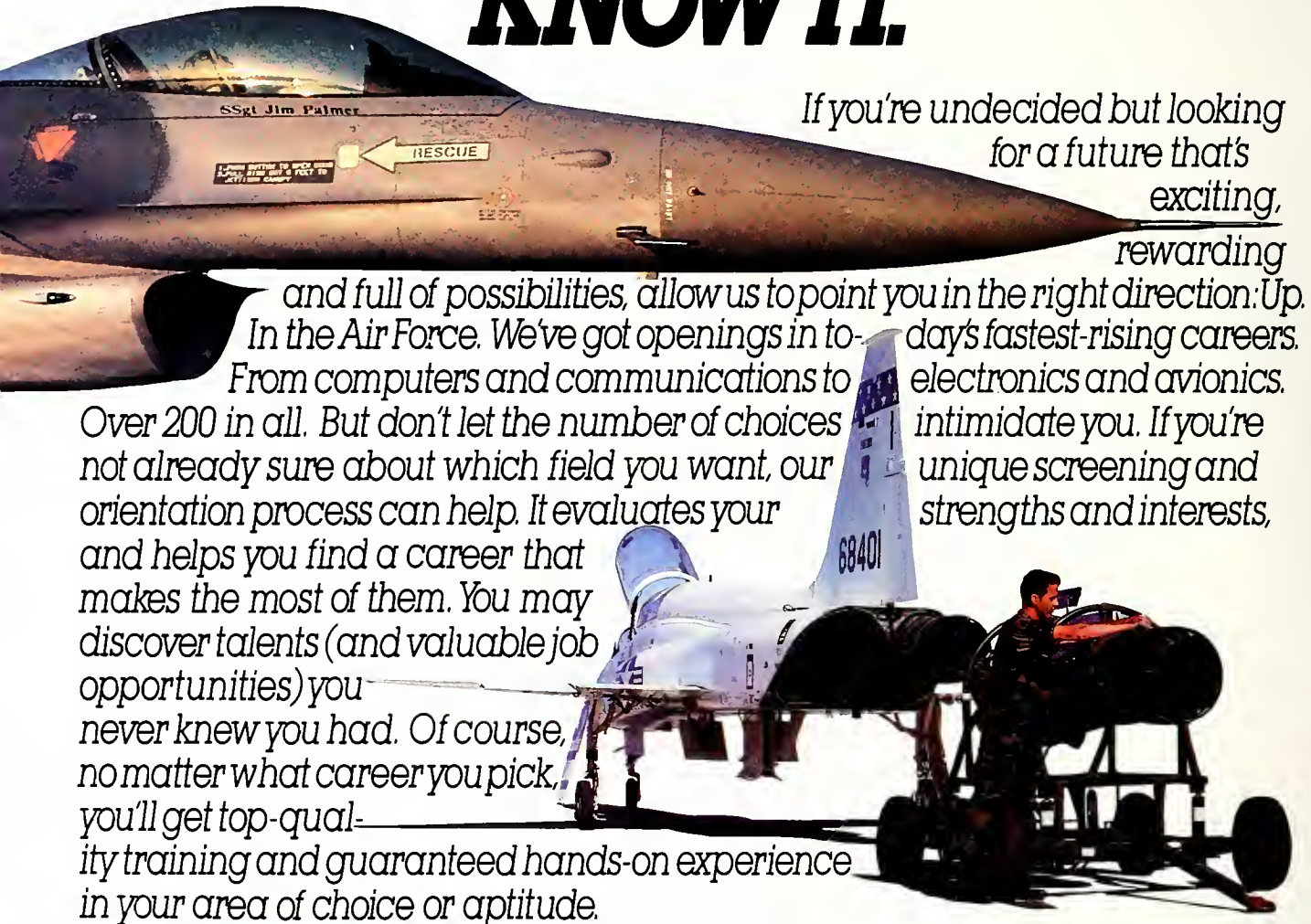
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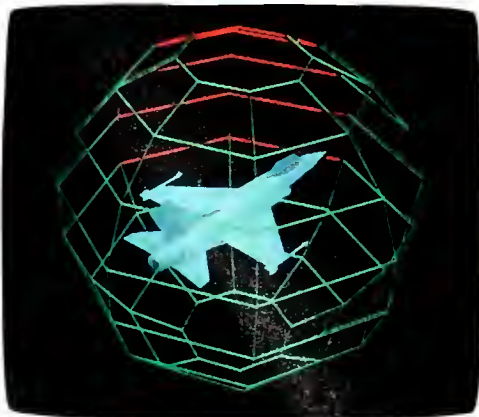
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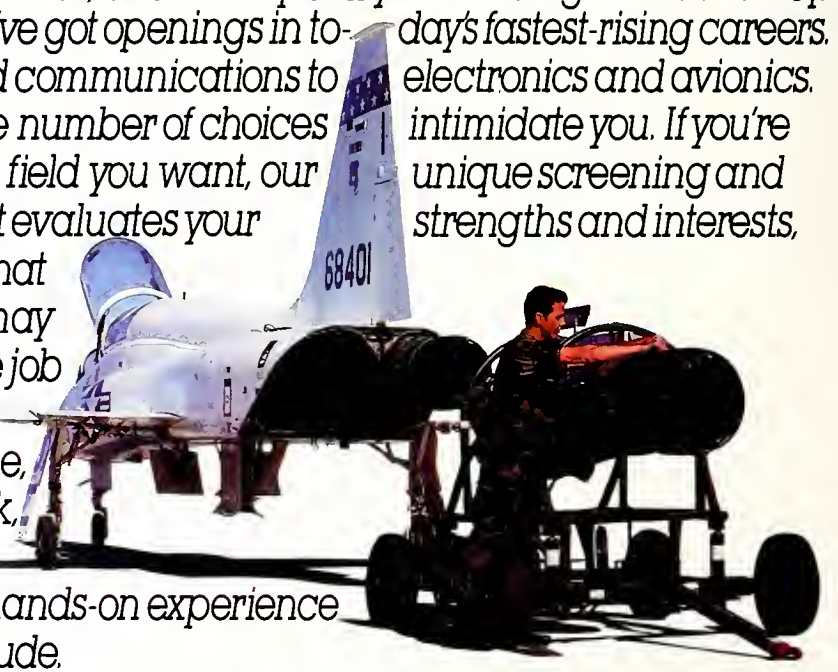




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