

# EXTENOVATIONS

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Waters sings praises

## Green, green 'sparrowgrass' of home

The Romans ate it with relish. The Victorians believed it increased sexual potency. Yuppies toss it with pasta for salads. Kids turn green when they see it on their plates. But horticultural specialist Luther "Luke" Waters and increasing numbers of Minnesota farmers don't turn green when they see asparagus—they see green—the green of potential profits.

Waters' efforts to get farmers to grow asparagus began back in 1980, with a grant from the Governor's Rural Development Council.

"Jim Sutherland had looked at the potential for vegetable crops from a market perspective, and asparagus was high on the list, along with broccoli and cauliflower, which were experiencing tremendous consumptive growth," he said. "We got nearly \$180,000 from the council, which enabled us to look at the potential of those three crops during 1981, '82 and '83.

"We took a holistic approach; we felt that if any development was going to take place, there had to be work on marketing, research on production, and grower assistance in terms of publications, technical help and test plantings—the whole bag, all the way from generating information from research to finding ways to eliminate barriers to commercialization, leading people through stand establishment and helping them as much as we could in the handling and marketing side of it."

Waters estimates there were between 2,000 and 3,000 acres of asparagus in Minnesota before he got the grant, and that 1,000 to 2,000 more acres have been planted since then. More than half of the acreage is for process-



Luther Waters, left, and Dave Davis of the University's Department of Horticultural Science and Landscape Architecture check some of the asparagus plantings near the St. Paul campus. The two scientists are part of a major effort to encourage and support growth of the vegetable in Minnesota.

ing. Most new plantings have been established through the center of the state, from Koochiching County all the way down to the Iowa line.

Central to the success of the effort has been research by Minnesota Extension Service specialists and Minnesota Agricultural Experiment Station scientists. "Asparagus is more difficult in terms of its establishment and in understanding the physiology of the crop and aspects of harvesting, handling and marketing," Waters said.

He added that the biggest challenge is determining which cultivars are best adapted to Minnesota. Plots have been established at Staples and the Horti-

cultural Research Center to determine that. Among the cultivars under evaluation are all-male hybrids (these do not produce seed as female plants do, so volunteer plants do not contribute to the weed problem and the male plants can put all their energy into spear production).

Growing asparagus calls for a different attitude. "A person has to use a kind of orchard mentality with asparagus," Waters said. "Every place there's supposed to be a plant, there must be a plant because you're talking about a crop that will occupy the land for at least 15 years and possibly for as long as 25 years. So, preparation of the site and planting are extremely important. That's why we've stressed stand establish-

ment." Among the findings of the research so far is that new plantings can be established in the fall with containerized seedlings. Traditionally, asparagus fields are planted in the spring with crowns from nursery fields. Usually, the new plantings are not harvested until the second spring after planting. With the new method, seed is sown in early July and seedlings are set out in the fall, when they're 12 to 14 weeks old. "If you get good growth the year after you transplant the seedlings, you might even get a week or two of harvest—50 to 75 pounds an acre—the next spring, and 500 to 1,000 pounds an acre the following year," Waters said. "With the proper care, a really good growth

can get 3,000 to 3,500 pounds per acre from an established planting. In fact, some get more than that."

Waters said that the University of Guelph and Michigan State University are the only other North American institutions besides the University of Minnesota that are doing much research on asparagus. Involved in the Minnesota effort are Waters, vegetable breeder Dave Davis, who's evaluating a large germplasm collection for sources of disease resistance; plant pathologists Jim Percich and Jim Groth; soil scientist Karl Rosen; and agricultural engineer Vance Morey and food scientist Bill Schafer, who are working on postharvest handling problems. Extension plant pathologist Frank Pflieger handles most of the questions from extension personnel in the field.

But much of the credit for the growth of Minnesota's asparagus industry must go to the area and county agents who work with growers.

Ag agent Terry Nennich says there are about 22 acres of asparagus in Koochiching County. Another 30 acres are scheduled to go in next spring. The number of farmers in the county growing broccoli, asparagus, cabbage and cauliflower for the wholesale market has gone from 7 to 20, and 60 acres are now in vegetable crops. With grants from the Iron Range Resources and Rehabilitation Board and the Bremmer Association and some of their own money, the growers' association has hired a manager and bought two acres and a packing shed, with a couple of refrigerated spaces. Although irrigation is usually not needed in the county, it's been a must this year, and the association has bought a set sys-

See SPARROWGRASS, page 4

## Gail Skinner named associate director—programs



Gail Skinner

grams and educational efforts directed at consumers, farmers, business persons, youth and others throughout the state's 87 counties. She joins Minnesota Extension near the completion of a major statewide restructuring effort that will organize county and area extension agents and University campus-based specialists into issue response teams. According to Borich, the effectiveness of such issue-oriented programming has been demonstrated in Extension's recent Project Support effort for farmers in economic trouble, Teens in Distress programs for troubled youth and the farmer-lender mediation effort for farmers in serious financial difficulty.

It is this issue-oriented programming and Minnesota's excellent reputation for responding quickly to the state's needs that attracted Skinner to her new position. She adds, "Minnesota Extension is well ahead of the game in its emphasis on major issues and the interdisciplinary approach to solutions that I see working so well here. I'm looking forward to

the opportunity and challenge of working with Minnesota Extension."

Borich adds, "We're fortunate to be adding her to our staff. Her extension career in Wisconsin and Nebraska has been outstanding and her talent in dealing with people and coordinating programs will be very useful in this position."

Skinner holds a doctorate in educational administration from the University of Wisconsin as well as bachelor's and master's degrees in home economics from the University of Nebraska. Before moving to Wisconsin to do her graduate work and later join the extension staff there as personnel coordinator, Skinner was an extension clothing specialist in Nebraska for four years.

Her appointment is one of a number of changes to come to Minnesota Extension, which has undergone a major restructuring and refocusing of programs in the past year. Borich says, "We think we are now in a much better posi-

tion to make rapid responses to local issues and conditions as we proved with Project Support and its service to farm families. As a result of this restructuring, we can move quickly to offer educational assistance, coordination and communication throughout the state."

He points to the county clustering concept as an example of how counties are working together to tackle important issues. Cur-

rently 13 small groups of counties have announced their intentions to work closely together in clusters of from three to seven counties each. Other county cluster groupings are still being formed. Borich says this approach will permit maximum benefit from agents' areas of specialty and will encourage cross-county programming for major issues affecting the region and the entire state. ■

—Deedee Nagy

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## 4-H youth get hooked on fishing sports program

A kid who has never been near a lake learns how to build a winter ice-fishing pole. Another who's an avid fisherman keeps a diary of his fishing experiences, and comes up with a computerized database in which he can review the lures, lakes and dates that have been successful for various types of fish. An adult leader ties the first fly of his life.

It all happens in one of the newest and most popular of the 4-H programs: Fishing Sports. The program, which started in 1979, had more than 2400 nine- to 19-year old participants in 1986-87, and the numbers are increasing each year.

"We get a total mix of kids in this program," according to Bruce Munson, a staff member from the Sea Grant College program in Duluth and one of the initiators of the Fishing Sports program.

"We get some kids with no fishing experience at all—and in some cases kids who actually think they don't like fishing. And then we get kids who have fished all their lives and seem to memorize every issue of the fishing magazines. The program is challenging—and fun—for kids at every level."

A six-step Fishing Sports Advancement Program has been designed that helps the fishing enthusiasts move from Beginning Angler to Master Angler. Each step requires completion of activities in six project areas: All about Fish, Fishing Safety, Fishing Regulations and Management, Fishing Tackle, Going Fishing and After the Catch. An advancement certificate is awarded at the completion of each step.

Sample activities for Beginning Anglers include naming the parts of a fish, helping someone put a worm on a hook and describing good sportsmanship rules for angling. Intermediate Anglers may write a two-page report on a spe-

cies of fish, stock a first aid kit for the tackle box or show how to net and land a fish. Activity options for Advanced Anglers include reporting on the habitat requirements of three species of fish and developing a creel survey of fishermen at a particular lake or river.

To enhance the advancement program, 4-H leaders can attend a unique annual event at Camp Fish, a professional fishing camp on Long Lake near Walker, MN. The three-day event is organized and led by Joe Courneya, Polk County extension agent for 4-H and youth development, and head of the state fishing sports program committee. Classes are taught by professional instructors from Camp Fish.

Purpose, Courneya said, is to give adult and junior 4-H leaders a chance to get hands-on experience in casting methods, fly-tying, fish identification and fishing techniques for individual species.

Sometimes participants really get hooked on the Camp Fish programs. Two junior leaders who participated in the 4-H program a few years ago have been back to Camp Fish on their own each year since, and now are taking long canoe trips, based from Camp Fish, into Canadian waters.

Adults are learning too, Courneya said. Some who never tied flies or made spinners or plastic baits until they attended Camp Fish are not only teaching their 4-H anglers how to do these things but have taken them up as hobbies.

"The professional fishermen who are counselors at Camp Fish teach the courses and lead fishing expeditions where they can use the techniques they're teaching," Courneya said. "Then I help give the leaders ideas on how to take this information back to their counties and to the kids involved in the fishing project."



Bruce Munson, Sea Grant Program, teaches 4-H junior and adult leaders at Camp Fish near Walker, Minn.



Jeff Gunderson of the Sea Grant College Program, Duluth, demonstrates fishing techniques to 4-H junior leaders at Camp Fish.

And what are those kids going to learn? Overall goals of the 4-H Fishing Sports program were defined by John Kvasnicka, who was named program coordinator this spring.

"We hope the young people learn the life skills they need," he said. "We're talking here about the ethics and values of conservation and wildlife, knowledge of natural science areas, interrelationship of fish to the eco-system, safety involved in fishing, the possibility of career opportunities, development of safe, fun, outdoor family interaction, and

the global aspects of fishing: its role in nutrition and health and the worldwide economic impact of fishing."

Munson, a self-described "river rat" who grew up fishing on the banks of the Mississippi, added, "We're really oriented toward developing a conservation conscience. We want the kids to understand how fish fit into the natural world and how they as fishermen need to interact with the world of water."

Munson said organizers would like 4-H participants in the pro-

gram to understand that "they affect water by the very act of fishing and by any act of pollution. They need to be concerned about their actions."

Finally, Kvasnicka said, the program instills a sense of pride. "Angling develops a personal experience of seeing the reward," he said. "Fish are caught from the fruits of your learning: tying flies, choosing baits, baiting the hook and so on.

"Besides that," he added, "—it's fun!" ■

—Margo Doten

### Extension goes to Summer School

Dick Krueger (left) and Sandra Becker (second from left) kept their class informed and entertained with "Creative Evaluation Reporting," which taught several ways to report evaluation results. "Learning doesn't have to hurt," Krueger says, "and reporting the results of extension programs is critical. Decision makers need this information." About 140 students attended one of the 10 week-long classes held at UMD.

Bob Sopoci (left), Cook County, and Steve Berry, Cass County, compare charts produced in the Computer Graphics class taught by Karen Lilley of Educational Development Systems. In addition to state and county staff from Minnesota, students from Iowa, Wisconsin and the Caribbean took the class. Charts, graphs and word visuals were produced using Autumn and Ego, the graphics software packages being used by extension.

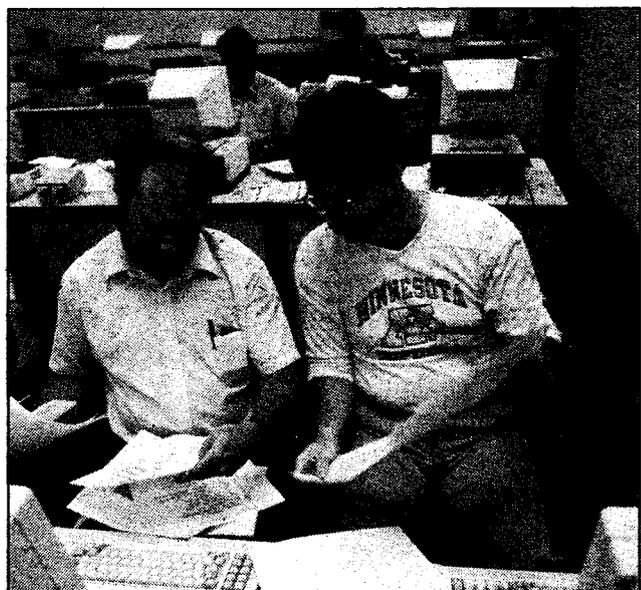


Photo by Dave Hansen



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## Production efficiency is key to farm profitability emphasis

It's not always the highest production that's most profitable. Award-winning yield contests have been getting headlines for years, but Mike Boehlje suggests another approach: "We should give prizes to farmers who produce a bushel of corn at the lowest cost," says Boehlje, agricultural economist with the University of Minnesota's Extension Service.

"In today's competitive foreign and domestic markets, the low-cost producer has a definite advantage," he adds.

The key is maximum economic yield. "This means spending less on inputs, especially on a per-bushel basis," says Kent Olson, a co-worker of Boehlje who works with Minnesota Farm Management Associations.

Olson cites 1986 figures from the Minnesota Southwestern Farm Management Association, where farmers who grew corn on their own land were grouped by returns to overhead costs. The top 20 percent had average direct costs (not including overhead) of 73 cents per bushel, compared to \$1.26 for the low 20 percent. Direct costs include fertilizer, seed, chemicals, crop insurance, fuel and oil, custom hire and repairs. Overhead costs include utilities, insurance, taxes, interest and depreciation.

Olson is quick to point out that higher yields for the top group (160 bushels versus 105 for the low 20 percent) were part of the reason for the lower per-bushel cost. But he stresses production efficiency—attention to details such as input costs, plant popula-

tions and timing of fertilizer and chemical applications.

Farmers in the top group spent \$4.63 more per acre on fertilizer than the low 20 percent, and produced 55 bushels more per acre, helping farmers save money on fertilizer—without reducing crop yields. "Many farmers have adopted cost-cutting measures that we started pushing hard in 1984," says soil fertility specialist George Rehm. "We've stressed production efficiency from the beginning of the farm profitability crisis."

Rehm surveyed farmers in 19 Minnesota counties who had attended crop production meetings early in 1987. He asked farmers to estimate how much money they would save per acre if they made fertilizer management changes discussed at the meeting. Responses from 129 farmers averaged \$13.25 per acre.

Seventy-one of the farmers responding to the survey said they would not make changes in their fertilizer program. "Most said they were already using the management practices that we had suggested two or three years ago," Rehm says. "Many Minnesota farmers have made changes in their fertilizer programs and have saved money."

Boehlje says the potential for savings for efficient production are even greater in livestock operations. Studies show that many dairy enterprises can increase net income by culling unproductive cows rather than by increasing herd size.

In many swine herds, the largest

factor in feed efficiency is feed wastage; studies show the average feed wastage ranges from 1 to 23 percent.

For some producers, weaning more live pigs per litter can be a big improvement in efficiency. And the most efficient way to get rid of the manure in hog operations may be hiring labor—not

spending money on facilities.

"It's possible to spend a lot of money on buildings and equipment to get rid of manure in hog operations. In some cases, you can hire labor to get the job done more efficiently," says Vern Eidman, economist with Minnesota's Extension Service.

In the 1970's, many farmers focused on volume—the highest yields per acre regardless of costs. "Now the focus is on efficiency," Boehlje says. "With today's narrow profit margins, farmers who are surviving are doing so partially through lower costs and improved efficiency." ■

—Jack Sperbeck

## Minnesota 4-H volunteer receives national recognition



Minnesota volunteer Mary Nelsestuen, center, receives her award for outstanding volunteer service from Donald G. Haver, left, of RJR Nabisco, Inc., and Congressman Bruce Vento, 4th District, Minnesota.

What does the Minnesota 4-H program need? It needs more volunteers like Mary Nelsestuen of St. Paul.

Nelsestuen was honored as an outstanding volunteer at the fifth annual 4-H Salute to Excellence held this past March at the National 4-H Center in Chevy Chase, Maryland. She was one of 52 volunteer 4-H leaders selected from more than 630,000 representing each state, the District of Columbia and Puerto Rico.

The annual recognition and training program is arranged by the National 4-H Council and supported by RJR Nabisco, Inc. In addition to educational field trips and a congressional reception, the program included a seven-day intensive training session in which participants learned to better understand and effectively work with teens, recruit and train more volunteers, influence and

effect changes with public officials, build teamwork among 4-H volunteers and members, and use the media effectively.

Nelsestuen was given a \$1000 incentive grant from RJR Nabisco, Inc. to broaden volunteerism in the Minnesota 4-H program. To do this, she is initiating a pilot program to get senior citizens involved as volunteers. By focusing on this often-neglected segment of our society, Nelsestuen believes, 4-H can fill the need for more volunteers and, at the same time, create a climate in which these older, more experienced people can interact with young 4-H'ers.

Initially, Nelsestuen will match three specific 4-H clubs with three groups of seniors—one from a community center, one from a senior housing unit and one group of retired seniors. The program will begin in August and

finish in July, 1988. The results of the match-up will be published and made available to 4-H leaders and interested parties throughout the state.

"It's becoming more and more difficult to find volunteers," Nelsestuen says. "We lost a lot, for example, when women went back into the work force. So there's a need to look in other places and that's why I hope this senior project is successful."

"We also need to be looking at new ways of structuring our program. Many people either don't have time or don't want to make a commitment. So if someone can only volunteer for six weeks, we should use them for six weeks and not turn them away because they can't make a year-long commitment."

One reason why Nelsestuen was selected for this honor is her degree of commitment to the 4-H volunteer program. She was a 4-H member herself from ages 10 to 21 and her two teenaged children are currently members. "The program has a wide range of things to offer," she says. "Since I had this background in it, I felt that I had something to offer in return."

If you feel that you have something to offer, your county extension office can direct you to a 4-H program that will make good use of your experience and your willingness to become involved. "You'll be helping youths develop life skills," Nelsestuen says, "and you don't have to be an expert." ■

—Guy Rehwinkel

## 'Fragile Time' video on teen suicide ready for distribution

A half-hour documentary, "Fragile Time," exploring some of the early warning signs of teen depression and self-destructive behavior, is now available for use by counties and the educational and social service agencies with which they work. It was produced by Rich Reeder, communication specialist with Educational Development Systems; Joyce Walker, 4-H youth development specialist, and Joanne Parsons, program development specialist with Educational Development Systems. Working closely with them on the program's content were Drs. Barry Garfinkel and Harry Hoberman of the University's division of child and adolescent psychiatry.

According to Walker, the program resulted in part from the successful Teens in Distress teleconference held last fall. By following three actual case studies the documentary points out the warning signs and self-destructive behavior associated with a suicide, an attempt and a threat as well as some options for intervention and referral. The program focuses first on the family and friends of a young man who committed suicide. It then looks at an adult who attempted suicide as a teenager and, later, at a pre-teen whose family saw him struggling with depression and helped him get the medical and psychological help he needed to avert a suicide attempt.

According to Walker and Joanne Parsons, program development specialist, the documentary is in-



tended for educational sessions with adults concerned about teenage depression and suicide. A discussion guide is available to use along with the documentary. A next step will be the development of a 4-H suicide prevention curriculum to be used with young people in classrooms or 4-H club sessions. That unit, "Tackling Tough Stuff," contains seven lessons to help teens recognize the warning signs of stress and depression, develop skills for coping, communicating and problem-solving. It also helps young people understand some of the community resources that are available to themselves or to friends who are struggling emotionally.

Agent training sessions using the documentary as well as the discussion guide and 4-H materials are scheduled for later this summer. "Fragile Time" will be available either for rental or purchase through county extension offices and the distribution center on the St. Paul campus. ■

—Deedee Nagy

## In brief . . . In brief . . . In brief

Arlene Stansfield, Director of Consumer Affairs at Land O'Lakes, received the Outstanding Achievement Award from the Board of Regents June 4. The award, given to alumni to recognize unusual professional achievements and outstanding leadership, honored Stansfield for her accomplishments and public service in home economics. At Land O'Lakes, she created a consumer affairs department considered to be a model for other companies and a consumer advisory committee that has received national recognition. Stansfield has also been a member of the Institute Advisory Council since 1975.

Dick Hawkins, extension economist, farm management, was named chair of the North Central Farm Management Extension Committee at its annual meeting at the University of Guelph, Ontario.

Dean and Director Pat Borich received the Honorary State Farmer award from the Minnesota Chapter of Future Farmers of America (FFA), announced at its 50th an-

nual banquet in April. Borich was recognized for his long-term contributions and support to Minnesota FFA, both in his years as an agriculture teacher and throughout his extension career.



Pat Borich receives Honorary State Farmer award from Brian Hicks, immediate past president of FFA. Brian is the son of Dave and Jean Hicks, Redwood County, who serve on the Extension Citizens' Advisory Committee and the Home Economics Advisory Committee respectively.

# Explore Rural Minnesota

by James T. Courneya  
County Extension Agent  
East Polk County

*Editor's Note: East Polk County Agent James Courneya wrote this editorial for the newspaper serving electric co-op members in his area of Northwest Minnesota. His ideas are interesting and, Courneya says, have caused considerable comment among readers. **Extenovations** is pleased to share occasional thought-provoking articles such as this that are written by extension staff for publication in newspapers or professional publications.*

If I were to send out 10,000 questionnaires to the people of northwestern Minnesota asking how to improve the economic conditions of the area, I might get back nearly that many different opinions or ideas. Some would say we need better farm prices, or we need to retain mainstreet business. Others might say we need to halt school or bank closings or provide more jobs. And the list goes on and on.

These are all excellent and descriptive ideas of what's happening in rural Minnesota as well as rural America in general. But trying to work on and solve each problem individually would be an impossible task.

How can we improve farm prices when we (as well as other countries) produce a huge surplus of just about everything? How can we keep schools, businesses and banks from closing if we don't have enough people to fully utilize them? And how can we keep

or attract more people to northwestern Minnesota if we don't have jobs for those people?

You can see that the whole concept of rural revitalization becomes a complicated and tangled mess. However, closer analysis of the problem and proposed solutions eventually focus in on a single key ingredient. That is people.

Basically, the more people you have in a given area, the greater is the need for schools, banks, services, stores, housing and food. More people bring with them more problems also, and therefore a greater need for law enforcement, waste facilities, etc. But keep in mind that these are also "jobs," whether desirable or not. The more people, the more jobs, the more money flowing through a community or area. That, my friends, is economic growth.

So how do we start the snowball rolling towards economic growth? First and most important, everyone must agree on what we're trying to achieve. If half of the people say "Let's attract new industry" and half say "We don't want a bunch of new people invading our area," progress is halted before it starts. If I stand up and say, "I want to see more jobs in my community but I don't want some big radar station in the area because we might get bombed by the Russians," then I'm talking without thinking. There are pros and cons to every issue but when the pros outweigh the cons it ought to be full steam ahead.

Perhaps the ideal industry to strive for is tourism. Really, it's the best of both worlds. People come into the area, spend their money and then leave. But why would tourists want to come to northwestern Minnesota? They won't want to unless they are offered something unique. Every community, county or region has something unique to offer. But tourists aren't going to come flocking in and ask us what's unique about our area. They have to be told, invited and given a warm and friendly welcome when they do arrive.

I've spent considerable time in more traditional tourist areas of the country and I can't begin to count the number of times I've heard locals say they can't stand all the tourists. That's biting the hand that feeds them.

Florida doesn't have any state income tax. One of the reasons for this is the enormous revenue generated by tourism. North Dakota has made tourism its third largest industry—that's right, North Dakota. Commercials inviting people to visit Saskatchewan appear on American TV every day.

We live in an aging society. Each year more and more people reach retirement and suddenly have time to do things they've always wanted to do but never had time for. Things like traveling and exploring this incredible country we live in. Maybe the time is right to take advantage of this and give some of those people a reason to "Explore Rural Minnesota." ■

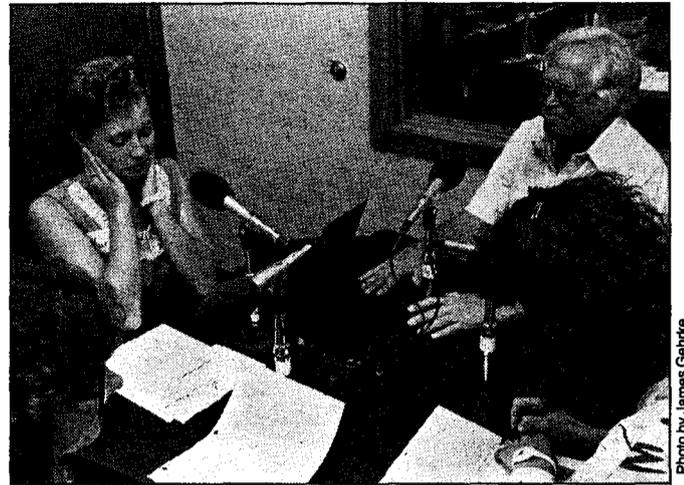


Photo by James Gehring

## 4-H Ambassadors explore media

WCCO radio farm director Chuck Lilligren coaches a group of 4-H Ambassadors in Extension's radio studio. Their timed, taped messages will be played on the state's radio stations in the fall and during National 4-H Week promotions. As part of the Ambassadors' training, a media unit focused on how to use news outlets to tell the 4-H story. Minneapolis Star and Tribune reporter Kim Ode advised the Ambassadors on the preparation of news releases, and videographer and media consultant Tom Braun videotaped them for public service announcements to be used on television during member recruitment drives in the fall.

## Green, green 'sparrowgrass' of home

Continued from Page 1

tem. The county leadership seems to appreciate what is happening; it increased the extension budget by \$3,000.

"We're going very, very slowly and developing our markets as we expand," Nennich said in early July. "Everything we're growing this year has already been marketed."

Farther south, near Little Falls, Jim Ambuehl is also involved with asparagus. Ambuehl has two jobs—he works as a horticultural development specialist for Tri-County Community Action (Morrison, Todd and Crow Wing Counties) and is employed by Farm Fresh Produce, which grows 350 acres of asparagus as well as other vegetables and small fruits. Ambuehl said, "We work real closely with Morrison County agent Jay Backowski and area farm management agent Ken Olson, both extremely good people. Mr. [Jerry] Miller has some beautiful people out in the field."

Farm Fresh sells half of its asparagus to processors; the rest goes mainly to chain stores. Ambuehl called the market for Minnesota asparagus "outstanding." He said, "The buyers pay a premium over shipped-in asparagus. We have grading and packing facilities and we hydrocool it as it comes off the field. The growers also have an agreement with Farm Fresh to use its packing facilities."

Ambuehl stressed the importance of growers working together. "We have an unofficial growers' organization here," he said. "Marketing is not the problem for us. Until we get more rein over quality control and we get Luke Waters' and others' money to do research on our problems, we really won't be able to develop the industry as it should be developed."

There seems to be little agreement over how development of the state's asparagus industry should proceed. Some people, including Duane Blackowske of Fairmont, say they wouldn't get

into asparagus production if they had it to do over. A number of people are finding keeping a supply of dependable labor for a crop with a very short (six- to eight-week) marketing season a problem. Some growers, such as Ray and Jan Beilke of Carlos, Minnesota, have found that a pick-your-own asparagus operation lets them avoid that problem.

Last year, Waters did a study that estimated that as many as 275 more acres of asparagus might be needed to meet Minnesota's needs. But the potential for growing asparagus for out-of-state markets is limited only by the drive and abilities of the people involved, he says.

"Our production costs are competitive with most areas of the country," Waters said. "Our disease and insect problems are less severe than in California [the largest producer], Florida or Texas. But we have to consider transportation costs when we talk about competing in out-of-state markets. When we consider domestic exports, we're generally talking about the larger cities to the south—Chicago, St. Louis, Kansas City, Des Moines, Atlanta, Memphis and Dallas. And we already export some produce to Canada and there's some potential there for Minnesota asparagus, although the window's pretty small because once the local product comes on the market, the Canadians slap a tariff on imported produce."

Whatever the end result of this drive for a bigger asparagus industry in Minnesota, one thing is clear: there will be a weeding out of the producers who are poor managers or who do not enjoy putting in long hours to make a go of it in vegetable production.

Waters said, "Getting into asparagus or any other vegetable production is for people who can afford to take some financial risk and are willing to work. They must look at the markets, look at their production capabilities and take their time getting into it." ■

—Sam Brungardt



Photo by Don Breneman

Tourism may be one of the keys to revitalizing rural Minnesota, according to James Courneya of East Polk County.

## Agent trains others to prevent hypothermia

You don't need to fall into an icy lake or be out in sub-zero weather to suffer from hypothermia (lowering of the body temperature). It can happen in the relative near-warmth of your house.

Elderly people who turn the thermostat down just a few degrees to save on heating bills may be vulnerable. And the problem can be compounded for people taking certain medications:

There are 35,000 estimated deaths a year from hypothermia in the U.S., says Rose Allen, county extension agent in Ramsey County. Allen has worked with Northern States Power

(NSP) on a program to prevent hypothermia. NSP funded a training program for Allen and other people in public and private agencies. Local training sessions were offered through the Center for Environmental Physiology, headquartered in Washington, D.C.

After she finished the training, Allen trained 53 home study group leaders on prevention strategies for hypothermia. Those 53 in turn reached 750 volunteers and family members.

"NSP was concerned about the safety of their customers. They asked us to help them with edu-

cational programs on preventing hypothermia," Allen says.

The training sessions gave tips to help lay people recognize signs of hypothermia and prevent it. Prevention strategies include dressing and sleeping warmly.

As a result of the training sessions that Allen and people in other agencies conducted, NSP received a "Warm Heart Award" from the Center for Environmental Physiology. The awards went to individuals and organizations for leadership in preventing heat and cold stress among the elderly. ■

—Jack Sperbeck