OUR VIEW

4-H goal: bigger science workforce

A REUNION with grade-school classmates last month led to some interesting discussions on education. Much of the conversation centered on who and what influenced our career path decisions. Of my 1971 graduating class of 18 students from Horace Mann Laboratory School, about half of us pursued careers in science. I'm the only one working in agriculture. The other half works in a variety of occupations — accounting, architecture, teaching, sales and marketing.

Looking back, I realize it was my grade-school teachers, my 4-H club leaders and my family who guided me to a career in agriculture. Their powerful influence came during my younger formative years — not when I was filling out college entrance exams in the guidance counselor's office my senior year of high school.

The National 4-H Council recognizes that to recruit more youth to careers in agricultural science, it needs to start at an early age. Current test scores and studies show U.S. eighth-grade students are falling behind in the disciplines of science and math. By the time most young people reach high school, their interest in science wanes.

The National 4-H Council recognizes the cultural shift that is leading to a critical shortage of scientists in this country. Topping that off is the loss of critical knowledge that will occur when the baby boomers retire and leave the workforce in the coming decade. Such a loss has never been seen in American business and government. No matter what type of occupation, this generation drove American prosperity for half a century, and the loss of their productivity and experience will be sorely missed. This includes American farmers, ranchers and ag scientists.

Taking action

The National 4-H Council has a powerful mission under way to build young leaders in science, engineering and technology. Its ambitious goal is to recruit 1 million new scientists and 1 million new ideas by 2013.

To accomplish this will require innovative programs and curriculum that support scientific literacy in the United States. It will take major funding and corporate partners. It also will require aggressive promotion of a positive and modern agriculture image to students.

To see the latest developments and recruiting tools, check out the article "4-H program recruits new scientists, ideas" on Page 10 of this issue.

Here in Missouri, educational and fundraising efforts are already under way. As part of the Extension outreach of USDA and the University of Missouri, 4-H is connected to cutting-edge research. 4-H staff and leaders translate this information and related activities into hands-on, real-world experiences for youth. 4-H clubs, camps and after-school programs, with their powerful combination of science and youth development, can reach many young people.

4-H is providing SET program training for 3,500 youth development professionals and 500,000 volunteers. SET stands for Science, Engineering and Technology. Missouri 4-H's five-year goal is to recruit 21,000 new scientists with 21,000 new ideas. To accomplish this, 4-H will seek an additional 1,100 4-H project-leader volunteers, nine 4-H youth development specialists and one state 4-H youth development specialist. I believe we can count on 4-H youth to lead the way to developing positive, can-do attitudes about agriculture and other fields of science. The rest is up to you, me and our ag industry leaders.

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False flu stories hurt swine farmers

Dailey Discussions

By **DUANE DAILEY**

FOOD is safe, reliable and inexpensive. It's plentiful and available everywhere, every day. Farmers have an impressive story to tell. Sorry to say, that is not a grabber headline.

Pork producers were whacked by too many grabber stories that were not only inaccurate, but also repeated endlessly. The events following the misnaming of Influenza A type H1N1 shows how hard it is to stop a catchy, but untrue, headline.

Pork industry leaders were quick to respond, pointing out the wrong source of the latest flu-virus outbreak. Media in farm country were quick to switch to the correct name, H1N1. However, *The New York Times*, one of the most influential papers in the nation, continued to use the wrong name.

Our success in agriculture has hurt us. So few farmers are needed to produce the nation's daily food supply, most citizens do not have to pay attention to agriculture. Most consumers are generations removed from the farm. That lack of knowledge allows the uninformed to be misled. That applies not only to consumers, but to journalists as well.

Overcoming that lack of knowledge is a horrendous task. Still, it is a job farmers must work on. Bad news has a big impact on our farm economy. Now, after a little time has passed, let's look at the tally.

When the misnamed flu hit the news, nearby hog futures prices fell more than $10 per cwt. in the first week. "That's a 15% price drop on an already break-even price," says Scott Brown, livestock economist at University of Missouri Food and Agricultural Policy Research Institute. Chris Hurt, economist at Purdue, calculated that one week cost the U.S. pork industry $30 million.

That was the beginning. Bad news brought overreaction by many foreign pork buyers — vital markets. Some nations slapped on import bans. Egypt, the most extreme, ordered the slaughter of swine in their country. (Realize that more than health safety may have been in play. Egypt, a Muslim country, produces little pork. The swine owners were Christians.)

Egyptians weren't the only ones using bad news to push their own agendas. In this country, anti-agriculture activists wrote letters to the editor using flu as an attack on confined animal feeding operations. Weeks after the source of the flu outbreak had been clarified, anti-agriculture factions were still dispensing false information. One wrote that the first flu cases in Mexico were in a small village. There was a large hog farm outside of town. Therefore, the flu came from the hog farm. The writer urged people to guess the source of the flu.

Science and sensibility

This gets us back to a weakness in our education system. A failure to teach scientific thinking hurts us all. A basic tenet of science: Don't jump to conclusions. Science doesn't confuse casual relationships as proof of cause. Instead of jumping to conclusions, scientists form a hypothesis. Then they check the facts and run tests to see if reality supports the hypothesis.

Health scientists examined the swine in question. Tests showed no flu viruses in the herd. That doesn't explain where the virus came from, but it should eliminate one rumor.

A scientifically educated public would be more skeptical of unfounded claims. This pertains to Oprah Winfrey, a multitude of shouting TV commentators, and even normally trustworthy journalists. An educated public becomes more important all of the time. We need education not just to train new scientists, but also to train the public. Factual analysis can cut a lot of needless hysteria.

Overall, the public does show common sense. Beef producers know the impact of bad news following discovery of that one cow with bovine spongiform encephalopathy in 2003. That was an economic whack. A USDA analysis of that case shows that U.S. consumers took the news in stride in about two weeks. They went back to the meat case, buying beef.

USDA scientists also looked at the global avian influenza outbreak in 2006. Their conclusion: Public misperception caused the damage more than the disease itself. How important is education? An informed public can be a buffer against economic disasters.

We want to hear from you!

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All letters must include your name, address and telephone number for verification purposes, and should not exceed 300 words.