



The Rural Internet

By Vicki Garrick

The Internet is rapidly moving from a place to perform a search to a vital communication apparatus. As Internet-based networks mature, tools for monitoring and controlling different aspects of farm operations are emerging.

To ensure productivity, these tools need

a reliable high-speed network. Although an on-farm network doesn't need to be connected to the Internet, it can extend the geographic reach of the farmer so that tasks can be performed and monitored from anywhere you have an Internet connection.

This article examines sources of high-speed Internet for rural areas. For remote monitoring and control of farm operations using the Internet, ideally, a speed of 128kbps or greater is needed.

A growing demand

The two major challenges with Internet coverage in farming communities are technology limitations and economic considerations. These have led to the lag in services in rural regions. That said, rural communities do have options.

The growth of the Internet as a productive tool has stimulated the demand for broadband service. This demand will make omnipresent Internet coverage a certainty. For now, farming communities have to forge ahead at building support within the community and lobbying for service. Hopefully, farmers' strides to develop and implement networked-based monitoring and control will open the eyes of telecommunications companies to see value in supplying the farming community with Internet access.

A shared solution

Wireless networking is playing an increasingly important role in networking rural communities. One application is to use wire-

less technologies to create a broadband link between two sites that are up to several miles apart. Using off-the-shelf wireless networking technology, such as 802.11g (also known as wi-fi), a point-to-multi-point relay can be established. A shared broadband connection makes it possible for users who are scattered across a wide area to build a network spanning widely separated sites.

For example, a farm house or office that has a high speed connection might agree to share its connection with neighbors. These neighbors could set up a point-to-point wireless link to bring in Internet access. Thus, someone several miles away may be linked to the Internet via several intermediate relay points. This can be done at a relative low cost to the users.

This type of arrangement relies on individuals being willing to share their connections, as well as maintaining the wireless equipment and the network (the chain is only as strong as its weakest link).

Wireless broadband will be an important option to rural and agricultural communities as their operations are distributed over large and often non-contiguous areas.

For ubiquitous Internet coverage to become a reality, farmers and other rural businesses must become educated consumers of the available high-speed Internet options and unite in their effort to bring high-speed Internet into their community. ♡

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Researchers Look For A New Icon

Brooks Davis used to think his rice was sick from high pH soil, or perhaps salt or maybe herbicide carryover. "When we starting treating our rice with Icon," he recalls, "we found that 75 percent of our problems were related to lespepeza worms, which were trimming roots off the plants."

Davis farms about a thousand acres of rice near Stuttgart, Ark. Like other farmers with water weevil or lespepeza worm problems, Icon was the answer to their prayers.

Then, the manufacturer pulled the herbicide off the market for use in rice in 2004, and Arkansas rice farmers were left high and dry. They have had to resort to other tactics such as overseeding – and the increased risk of encouraging sheath blight – flooding earlier than usual and using Mustang Max.

Large farm plots in the future

However, researchers at the University of Arkansas Division of Agriculture are searching for a replacement that will put a lid on the water weevils, lespepeza worms and chinch bugs plaguing the state's rice fields.

Dr. John Bernhardt, a Division researcher at the U of A Rice Research and Extension Center at Stuttgart, estimates that Arkansas farmers treated about 400,000 acres of rice for lespepeza worm in 2005. His efforts to find a replacement have been frustrated by the nature of lespepeza worms. "We'll put out a test plot, and the insects will show up on the other side of the field from our test. We need a reliable site to work with."

That may happen next year. Bernhardt says the EPA has cleared him to go onto a farm and use unregistered products under certain guidelines. "We may be able to do larger plots on farms that we know are infested with worms, and that will aid us in finding a replacement.

"We've been trying chemicals since we knew the maker was going to withdraw Icon from the market. We found one that would be a good replacement, but the company is not interested in registering it for rice."

He says there are a number of other seed treatments and foliar applications he wants to test once he gets reliable test sites. Bernhardt expects next year to be able to test several chemicals and find out which ones work.

"Then, we'll have to see if the company or

companies are willing to register it in rice," Bernhardt adds.

Gary Sebree has the same problem as Davis, his neighbor. "I would say on the Grand Prairie, at least 80 to 90 percent of the true prairie ground has the potential for lespepeza worm problems," he says. "They don't seem as prevalent in heavier ground.

"When Icon came along," he says, "it did such a great job that we tended to forget about it because it worked so well. We need an alternative because lespepeza worms are a major concern on the prairie."

A replacement can't come too soon for Dr. Chuck Wilson, rice specialist for the U of A Cooperative Extension Service. "Rice water weevils and chinch bugs were as bad last year as I can remember. They would have been controlled by Icon," says Wilson. "We have some products for adult water weevils, but it's the larvae that do the damage.

"Mustang Max, a pyrethroid, is labeled for lespepeza worms. In some places it works well, but sometimes it doesn't work at all. It has potential, but it's not the cure-all farmers are looking for." ♡

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