



The *New* American Farmer

Rich Bennett

Napoleon, Ohio

Summary of Operation

■ *Corn, soybeans, wheat and cover crop seed on 600 acres*

Problems Addressed

Variable and troublesome soils. While his land is relatively flat, Rich Bennett contends with a range of challenging soils. Yellow sands with less than 2 percent organic matter are vulnerable to wind erosion and dry out quickly during drought. At the other extreme, lakebed clays are slow to drain in spring, making timely planting difficult.

Focus on production instead of profit. Bennett remembers the mindset with which he approached farming in the late 1970s. “We were only concerned about producing more bushels, not more profit,” he admits. “One year, I got a recommendation from my fertilizer dealer that cost me \$25,000 on our 300 acres.”

Labor. “My Dad always used rye cover crops after row crops and a mix of red clover and sweetclover after wheat to keep the soil from blowing,” recalls Bennett. “But I thought they were a big nuisance and got rid of them as soon as I could.” Two decades ago, conventional tillage machinery was not adapted to shredding and burying cover crops, and Bennett did not find it efficient to grow covers. Moreover, he had to balance time spent on livestock enterprises with off-farm work as a commissioner for Henry County, Ohio.

Background

Rich Bennett’s father, Orville, purchased the first 40 acres of what is now Bennett Farm in 1948. Rich left a teaching job to farm full time with his father in 1972. By then, the farm had grown to 300 acres. The Bennetts also finished 50 steers a year and ran a small farrow-to-finish hog operation.

The hog operation helped them pay the bills, but Bennett soon saw that there was no way the farm could support them unless they started doing things differently. Change came slowly to Bennett Farm. In the mid-’80s, Bennett attended a sustainable farming workshop sponsored by the nonprofit Rodale Institute. He was skeptical.

“I only registered for the first day,” Bennett remembers. “But I came back for the second day. The workshop helped me get the confidence to try to cut back on my fertilizer rates.”

He tried reducing his phosphorous and potassium applications on a few acres at first. He saw no difference in yields, and soon trimmed applications on his whole farm. “Today I spend about the same on fertilizer as I did before I cut back,” he says. “But now that fertilizer covers 600 acres instead of 300.”

Focal Point of Operation — Cropping systems

Bennett is a cautious innovator. New practices have to prove their value in on-farm research plots or on small acreages before he adopts them. But those that work soon spread to his whole farm. Bennett’s

three-year corn-soybean-wheat rotation marries the conservation benefits of cover crops and no-till. Nearly all his acreage is protected by covers each winter.

After the Rodale Institute workshop, Bennett became a cooperator in the institute's on-farm research network. He learned how to execute carefully designed on-farm research plots and used what he learned to reintroduce cover crops to his farm. "I learned a lot from my experiments," he says. "They helped me see that cover crops are not only cost-effective, but they also help improve the soil."

Once his experiments convinced him that he could reduce phosphorous and potassium fertilizer applications with no loss in yields, he's slashed his phosphorous and potassium rates by half. Today, red clover disked in before corn cuts his nitrogen rate by 75 percent or more, and rye covers help him reduce herbicide applications on no-till soybeans.

"What's even more important is that, over the years, the covers have helped improve my soils and reduce weed pressure," Bennett says. "They've helped me cut down on my inputs while keeping my yields high, and allowed me to take back control of my farm."

After corn harvest, Bennett broadcasts 2 bushels of rye per acre with a fertilizer spreader. He then disks lightly or chops the stalks to ensure enough seed-to-soil contact for good germination. In spring, he drills Roundup Ready soybeans in 7-inch rows into the standing rye when it's about 30 inches tall. He uses a Great Plains drill with double-disc openers and wheel closers.

"It's easy to penetrate the rye with this drill and it doesn't stir up much soil, which



Tom Gettings/Rodale Inst.

Rich Bennett's cover crops help control weeds.

would cause new weeds to germinate," Bennett says. He applies 1 quart of Roundup at planting and another quart later in the season. Most growers add another herbicide on the second spraying, but Bennett feels the rye helps keep weeds in check enough that he can forgo the additional herbicide. His beans usually yield from 40 to 60 bushels per acre, at or above local averages.

Following bean harvest, Bennett drills wheat, which protects the soil over winter. He frost-seeds red clover at 8 pounds per acre when he top-dresses his wheat with nitrogen.

Before corn planting, Bennett kills and incorporates the red clover with two passes using a disk and roller. He takes a pre-side-dress soil nitrate test when the corn is 12 inches tall to determine how much additional nitrogen to apply.

"Now I can pretty much tell what I need just by looking at the red clover stand," he says. Most years, he sidedresses 50 pounds of N per acre, 150 pounds less than his usual rate before using red clover. When stands are particularly lush, he has reduced his N rate to zero with no yield loss. His harvests average 165 bushels of corn per acre.

To control weeds in corn, Bennett uses a half-rate Lasso-atrazine mix, or comparable product. "I used to plan to cultivate the corn, too," he says. "But, more and more, there isn't enough weed pressure to justify it. Having the covers in the rotation has really helped keep the weeds down."

Economics and Profitability

Bennett's system has cut way back on use of commercial fertilizers — and herbicides, too. He retains more profit by cutting fertilizer and chemical costs to less than half of what they were in the 1980s. Using a "typical" year, 1997, Bennett calculated that 19 percent of his gross income returned as profit.

Bennett grows his own rye cover crop seed on about a dozen acres each year, mostly in small, odd-shaped and erosion-prone fields that are difficult to crop.

"Those little fields make a tremendous income when you think about the amount of fertilizer and herbicide those cover crop seeds replace," he says.

In addition to fertilizer and chemical savings, Bennett's tillage system cuts fuel costs by about 35 percent compared to conventional tillage. "I use more fuel than strict no-till, but a lot less than full tillage," he says.

Bennett has been able to reduce his hours in the field, making one pass in the fall

(instead of two to disk and chisel plow) to work in his cover crop. He also consolidates tractor runs in the spring to one pass.

Environmental Benefits

Bennett credits cover crops and minimum tillage with controlling erosion on his farm. “You can tell the difference between our farm and conventional operations just by looking at the color of the stream after a good rain in the spring,” he says.

But the covers provide more than erosion control, he adds. “They’ve steadily improved the health of our soil. We get better water infiltration and quicker drying on the clays in the spring, and we get better water retention on the sands.”

Bennett used to have cutworm problems on his sandy soils. But since he started using covers, they’re practically nonexistent. Likewise, armyworms were slightly worse the first year he used covers, but are no problem now. White mold and sudden death syndrome plague area bean fields. But Bennett believes soil improvements on his farm have helped his crops resist those diseases.

Community and Quality of Life Benefits

“When I first started growing covers, the community benefited because it gave folks a lot to talk about at the coffee shop,” jokes Bennett. “But they’ve gotten used to it now.”

While few in the area have caught his enthusiasm for cover-cropping, Bennett has worked with local extension staff to teach neighbors how to do on-farm research. As a result, many have significantly reduced their nitrogen rates.

Bennett even credits cover crops with reducing planting-time stress. “I know they’ll help dry up the fields that used to be

too wet in the spring so I can plant on time. I know that the soil conditions will be right so that I get good germination.

“It’s also a pleasure to go out and walk the fields knowing that most of the time I’ll see things getting better instead of finding problems.”

Bennett likes how his new system has helped him regain control of both his farm

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management and his costs. These days, he feels that he makes a difference — and that’s one of the reasons Bennett continues to farm. “It’s a challenge every year, and I’m certainly not in it for the big bucks, because there aren’t any,” he says. “But nothing else but farming gives me the satisfaction of being able to use the skills that I’ve learned over my lifetime to keep making the farm better.”

Transition Advice

“Cut your teeth on cutting fertilizer costs,” suggests Bennett. “Don’t jump in whole hog, though. Test it out on small plots. Focus your soil testing and monitoring there and then take what you learn and gradually apply it to the rest of your farm.”

Once you have some confidence in making changes, try out cover crops, again starting

on small acreages. “But make sure you have at least a three-year plan,” he advises. “Don’t give up totally just because your test didn’t go well the first year. With cover crops, you won’t start to see some of the big benefits to the soil and weed control until after you’ve used them a few years.”

The Future

No one in Bennett’s family is interested in farming full time. But he’d like to find

someone who will take over the farm and continue to build on the soil improvements he’s made.

“I’m going to stay with this kind of farming and keep promoting it,” says Bennett. “I’m not ready to retire yet, but I see no need to invest any more in land or machinery. What I am looking for is new cover crop systems to give me a new challenge here.”

■ *Craig Cramer*

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Editor’s note: This profile, originally published in 2001, was updated in 2004.