

Klinge/Tidwell Cropping Systems Analysis

Jeff Klinge and Deb Tidwell farm about 300 hilly acres near Farmersburg, in northeast Iowa. They have been PFI members since 1995 and research cooperators since 1996. For several years, Jeff has generated production budgets for his organic soybeans and for conventional soybeans as grown in the neighborhood. But organic soybeans may be the most profitable crop in the rotation, so is it realistic to look just at the soybeans? In 2003, Jeff and Deb filled in the rest of the picture, providing operational costs and revenue for each crop in their five-year rotation. Jeff's notes on the following page provide additional information and observations from the 2003 cropping year.

[Table 5, click to view](#), shows production costs, yields, and net per-acre revenue for each crop. Some of the calculations involve an organic premium price for part of the yield, a feed-grade price for the cleanout bushels, and still another price for the field borders, which are sold as conventional production. Likewise, the organic crops carry additional certification and, often, storage fees. The detailed budgets are available from the PFI Farming Systems Program.

The table shows returns before federal crop support payments, and those would be greater in the corn-soybean rotation. However, the per-acre return in the five-year, organic rotation average \$110 even before farm program payments. Based on the yields and costs reported from 2003, a producer using the non-organic, corn-soybean rotation would need to run an operation several times larger than the Klinge/Tidwell farm to realize the same net return.



Jeff Klinge talks about the organic cropping system at a field day

Notes on the 2003 Crop Year - Jeff Klinge

Corn

I disked up a fairly good oats cover crop that was about 8 inches tall on 5/14/03. Started planting 5/22/03 using Kussmaul K403 at 30,000 plants per acre. I planted my organic corn later than most conventional growers to aid in weed control. This hurt my yield, because my corn was not as far along when the dry weather set in. The corn has not been sold as of 12/30/03. The price on the chart reflects what I have been offered for it so far.

Soybeans

I disked up a pretty good rye cover crop on 5/15/03 and started planting soybeans on 5/24/03. I planted a total of 118 acres. Half of it was following corn and half was following alfalfa. The soybeans on the alfalfa ground were less weedy, and took the dry weather better. The soybeans following alfalfa probably averaged 15 bushels/acre more than the soybeans following corn. Aphids were a problem for most everyone this year. I seemed to have had more Chinese (lady) beetles in my fields eating the aphids than conventional growers, especially after they all sprayed. My organic beans have not been shipped yet, so the yield is based on an in-bin estimate.

Alfalfa

It was wet when I cut first crop on 6/2/03. It was hard to get the hay to go through the haybine. Yield was very good, although it took two extra days to get it dry. I always leave an uncut strip (approximately 20' X 75') to help control leaf hoppers. The leaf hoppers go to this uncut strip instead of feeding on the regrowth of the rest of the field. I got this idea from an ISU/PFI study I was involved in. This seemed to help this year.

Second crop was also very good, even though the weather was getting drier. Third crop was a little short due to the dry weather. I usually only make three cuttings, but decided to make a fourth crop this year. The fourth crop made about 1.5 tons per acre.

Although my hay ground is organic, I figure no extra value on the price for organic. Not enough organic hay is sold to know what to figure for a premium.

Barley

In 2003 I seeded 75 acres of Excel barley on April 1 and 2. Seeding rate was 125 pounds/acre, with 15 pounds of alfalfa and 2 pounds of a grass mix. I sent a sample to a malter and for the first time I made malt quality. But the wind was quickly knocked out of my sails when I found out that the buyer needed IFOAM accreditation for shipment to Europe. Not having this accreditation cost me 75¢/bushel. I ended up... netting \$3.20/bushel. I think organic barley can gross more money than most people think.

Table 5. Klinge/Tidwell Cropping Systems Documentation

	Organic Crop Rotation						Conventional Crop Rotation		
Crop:	Soybean 1	Corn	Soybean 2	Barley	Alfalfa	System Avg	Corn	Soybean	System Avg
Operations	\$54.38	\$87.13	\$52.00	\$37.75	\$172.50	\$80.75	\$73.75	\$43.00	\$58.38
Land	\$170.00	\$170.00	\$170.00	\$170.00	\$170.00	\$170.00	\$170.00	\$170.00	\$170.00
Inputs & Labor	\$94.56	\$97.90	\$91.56	\$36.31	\$107.17	\$85.50	\$184.46	\$92.34	\$138.40
Total Costs	\$318.94	\$355.03	\$313.56	\$244.06	\$449.67	\$336.25	\$428.21	\$305.34	\$366.78
Yield	32 bu	125 bu	32 bu	83 bu	13 T		185 bu	42 bu	
Gross Income	\$410.00	\$496.78	\$410.00	\$264.75	\$650.00	\$446.31	\$442.15	\$252.00	\$347.08
Net Profit	\$91.06	\$141.75	\$96.44	\$20.69	\$200.33	\$110.05	\$13.94	-\$53.34	-\$19.70