Organic and Conventional Corn

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1997 Recap 1997 was my first year to grow certified organic corn. We compared the organic corn with conventionally grown corn, developing production budgets for each. <u>Table 8</u>.

The conventional corn was planted April 28th on second-year corn ground following alfalfa with manure nitrogen credit of 30 lbs and alfalfa nitrogen credit of 50 lbs. The organic corn was planted May 20th on first-year ground following alfalfa (no manure applied). Weed control was good in both fields. Stalk rot was a problem in both fields.

I do not think fertility was limiting on the organic field. Corn following alfalfa sod without fertilizer or manure has been

Jeff Klinge not overlooking his corr



my best corn (higher yielding) for years. I believe the later planting date plus lack of heat units in northeast lowa were a factor in 1997. Organic corn is normally planted later to aid in weed control.

Changes for 1998: Ceiba 3475 (108-110-day corn) has responded well on sod ground in the past, but it is too late for May 20th planting in northeast Iowa. I will plant 100-day corn next year.

1998 Crop In 1998 we compared organic corn to conventionally grown corn for the second time. The organic corn was planted May 12, on first-year ground following alfalfa with a manure nitrogen credit of 30 lbs. Half the 62-acre field was seeded with rye (2 bushels per acre) on September 8, 1997. Weeds were a problem, mainly ragweed and pigweed. Weed pressure was somewhat less where the rye was planted. I plan to continue this practice. Mycogen 2395, a 95-day variety, was used.

I was not happy with the weed control in the conventional corn. Foxtail was the worst, with some ragweed. Both came in late, after cultivation. Spring manure application may have had something to do with it. A 50 lb manure nitrogen credit was taken. Corn (Mycogen 2673, a 108-day variety) was planted April 30.

Changes for 1999: No more conventional crops. It really feels good to be able to farm without chemicals. My five-year rotation is barley, alfalfa, corn, beans, corn. I need to find a way to make small grains work better (more profitable). I will avoid spreading fresh manure in the spring. It seems to cause weed problems. I plan to compost most of the manure.

Item	0 / 0	Organic	Conventional
Dra Harrant Mashimara	_	\$20.50 ±	\$20.25 +
Fre-marvest Machinery		\$30.50	\$20.25 +
Seed	2 bu at \$6.50/bu, on half of organic field	\$6.50	
	29,000 plants/acre	\$30.00	\$30.00
Nitrogen (no P or K)	40 lbs	\$0.00	\$9.00
Herbicide	21 oz Axium + 1 qt Atrazine Custom spray		\$20.53 \$4.00
Insecticide		\$0.00	\$0.00
Crop Insurance		\$5.00	\$5.00
Interest	Pre-harvest expense, 9.0% for 8 months	\$3.90	\$5.25
Pre-Harvest Total		\$75.90	\$94.03
Harvest Machinery	Combine	\$25.00	\$25.00
	Haul grain from field	\$4.00	\$4.00
	Dry Grain (\$0.15/bu)	\$21.45	\$23.10
Harvest Total		\$50.45	\$52.10
Labor	\$8.00/hr (organic 7 hrs, conventional 4.5 hrs)	\$56.00	\$36.00
Land	cash rent equivalent Certification & user fees (\$.06/bu)	\$160.00 \$8.58	\$160.00
Total Cost per Acre		\$350.93	\$342.13
Crop Yield (bu/acre)		143	151
Cost per Bushel		\$2.45	\$2.27
Sale Price (per bu)	(Harvest of 25-ft field border necessary for certification: 142 x \$3.90 = \$553.80 + 1 x \$2.30 = \$2.30)		\$2.30
Gross Income/Acre		\$556.10	\$347.30
Trucking to Market		pd. by buyer	\$18.12
Net Profit/Acre		\$205.17	-\$12.95
1997 Net Profit/Acre		\$261.61	\$21.60

Table 8. Corn production budgets, organic and conventional, Klinge farm.

† Organic: tandem disk, shisel, seed rye, tandem disk, field cultivate, harrow, plant, how (2x), cultivate (3x).

‡ Conventional: tandem disk, field cultivate, harrow, plant, hoe (1x), cultivate (2x).