



# On-Farm Comparison Results

- HILGENKAMP

**Year:** 1999-2000

**Title:** Phosphorus Fertilizer Placement

**Crop:** Corn (1999), Soybeans (2000)

**NSFGPP Operator:** Rusty Hilgenkamp, Washington County

**Cooperator:** Jim Peterson

**Objective:** To determine and document the effect of phosphorus fertilizer application and placement on the profitability of producing corn and soybeans.



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**Treatments:** No phosphorus fertilizer vs. 11-52-0 @ 100 lbs./ac broadcast vs. 7-21-7 @ 120 pounds (11.4 gal) per acre applied over the row after planting. No fertilizer applied for soybeans.

**Results:**

	<u>Variable</u>	<u>None</u>	<u>Bdcst</u>	<u>Row</u>	<u>Prob &gt;F</u>
<b>Corn</b>	<b>Yield ,</b>				
<b>1999</b>	bu/ac at 15.5%	166	170*	173*	0.006***
	Moisture, %	16.5	16.3	16.4	0.47 ns
	Test Wt., lbs/bu	57.7**	58.1	58.1	0.038**
<b>Soil P</b>	<b>Cost</b>		\$ 11.50	\$14.40	
<b>13 ppm</b>			Appl. \$ 2.00	Appl. \$ 2.50	
			Total \$13.50	Total \$16.90	

**Results:**

	<u>Variable</u>	<u>None</u>	<u>Bdcst</u>	<u>Row</u>	<u>Prob &gt;F</u>
Soybeans 2000	Yield , bu/ac at 13%	50	50	51	0.27 ns
	Moisture, %	8.4	8.4	8.4	0.76 ns
	Test Wt., lbs/bu	57.6	57.7	57.7	0.70 ns

**Summary:**

The use of phosphorus fertilizer significantly increased grain yield (sig. @ .99) in 1999. Broadcast application increased yield above the no P treatment, and banded application increase yield above the broadcast treatment. Test weight was increased by both phosphorus treatments. There was no carry-over effect on soybeans in 2000.