

## Other Trials of Interest

### Rootworm Control

**Jim and Vickie Striegel** compared rates of rootworm insecticide. ([See table 1](#)) They used the shop-crafted banders manufactured by their neighbor, Larry Conrad, which are supposed to give more even distribution of material across the row than other banders. The hope was that the banders would allow them to use a half-rate of insecticide. Nevertheless, the corn receiving the full rate of Lorsban yielded better than both the control and the half-rate treatments in this trial.

**Steve and Gloria Leazer** compared rootworm insecticide to an alternative root stimulant, Bioroot Plus. ([See Table 1](#)) Corn treated with insecticide yielded significantly better than both the zero-rate check treatment corn and the corn treated with the biological root stimulant. The same root stimulant was applied to soybeans with no observable effect by **Mark and Rita Mays**.

### Seeds and Seeding

**Mike and Jamie Reicherts** evaluated the economics of using bin-run oats and soybeans instead of purchased seed. The farm-grown seed made them money in both cases. **Dick and Sharon Thompson** obtained a significantly greater corn yield with a population of 30,000 plants per acre than with 27,000. ([See Table 2](#))

### Harvest Date

**Ted and Donna Bauer** performed a simple experiment to compare corn harvest dates three weeks apart. The good drying weather in October allowed them to save more than \$11 per acre in grain hauling and drying. ([See Table 2](#))

### Multileaf Alfalfa

**Dordt College** compared a multileaf alfalfa variety to a standard alfalfa variety. The multileaf has more leaf for the same amount of stem, and so should produce a higher quality hay. Ron Vos at the College measured yield, crude protein, and relative feed value. He did not find differences clearly attributable to variety, but the multileaf characteristic should be expressed more strongly as the stand matures next year. ([See Table 2](#))

### No-till and Ridge-till

**Don and Sharon Davidson** carried out a trial to answer the question they often hear about the relative merits of ridge tillage and no-till. No-tilled soybeans can be seeded close with a drill, leaving little space between plants. In theory, this allows the crop to use more of the available sunlight earlier in the season than soybeans planted in 30-inch or 36-inch rows, and the no-till residue cover conserves soil moisture. [The results from the trial](#), indicate that the no-till soybeans did indeed yield 2.1 bushels per acre better than the ridge-till soybeans, a statistically significant difference. But the no-till system also required two separate postemergence herbicide applications and a higher seeding rate, and their cost outweighed the economic benefit of the higher yield. Don hopes to continue this comparison for several more years.

# MULTIPLE-TREATMENT TRIALS

COOPERATOR	CROP	PREVIOUS CROP	YIELD SIGNIF. CANCE	TREATMENT "A"				
				DESCRIPTION	YIELD (bu.)	STAT.	TRT COSTS	\$ BENEFIT
LEAZER	CORN	CORN	*	NO ROOTWORM CONTROL	106.6	b	\$0.00	\$14.40
STRIEGEL	CORN	CORN	*	NO ROOTWORM CONTROL	108.3	b	\$0.00	\$6.75
LEAZER	CORN	CORN	N.S.	NO STARTER FERTILIZER	102.2	a	\$0.00	\$38.50
LUBBEN	CORN	SOYBEANS	*	NO STARTER FERTILIZER	135.2	ab	\$0.00	\$10.00
MAYS	CORN	SOYBEANS	N.S.	NO STARTER FERTILIZER	131.3	a	\$0.00	\$38.50
STONECYPHER	CORN	SOYBEANS	*	NO STARTER FERTILIZER	112.0	b	\$0.00	\$0.00
THOMPSON	SOYBEANS	CORN	*	NO STARTER FERTILIZER	49.2	b	\$0.00	\$41.92
THOMPSON	CORN	HAY	N.S.	NO STARTER FERTILIZER	110.9	a	\$0.00	\$41.92
THOMPSON	CORN	SOYBEANS	N.S.	NO STARTER FERTILIZER	121.7	a	\$0.00	\$23.24
COLSON	CORN	CORN	N.S.	NO ADDED P, N ADJUSTED	104.6	a	\$15.36	\$10.87
DAVIDSON	CORN	SOYBEANS	*	98 LBS N (48 LB SIDEDRESS)	144.6	b	\$22.69	\$9.78
FRANTZEN	CORN	ALFALFA	N.S.	3 LBS N (0 SIDEDRESS)	170.4	a	\$7.00	\$25.61
STONECYPHER	CORN	SOYBEANS	N.S.	92 LBS N (60 LB SIDEDRESS)	124.6	a	\$40.25	\$13.97

# MULTIPLE-TREATMENT TRIALS

DESCRIPTION	YIELD (bu.)	STAT.	TRT COSTS	\$ BENEFIT	TREATMENT "C"					OVERALL COMMENTS
					DESCRIPTION	YIELD (bu.)	STAT.	TRT COSTS	\$ BENEFIT	
ROOT STIMULANT (BIOROOT+)	107.4	b	\$14.40	\$0.00	INSECTICIDE (COUNTER)	114.2	a	\$10.50	\$19.97	
HALF-RATE LORSBAN, 4.5 LBS	107.1	b	\$6.75	\$0.00	FULL RATE LORSBAN, 9 LBS	114.6	a	\$13.50	\$8.90	USED CONRAD BANDERS
100 LBS (5-23-23)	103.1	a	\$13.95	\$24.55	250 LBS (15-9-2-17S+MICRO)	101.8	a	\$38.50	\$0.00	ZERO RATE SHOWED HIGHER LEAF TISSUE Cu & Zn THAN OTHER RATES
5 GAL (7-23-5)	136.3	a	\$5.42	\$12.41	1 LB BIOMIX, 6 OZ PEPZYME	132.8	b	\$10.00	\$0.00	BIOMIX & PEPZYME MANUFACTURED BY IT&T
150 LBS (15-9-2-17S+MICRO)	132.3	a	\$23.10	\$15.40	250 LBS (15-9-2-17S+MICRO)	132.4	a	\$38.50	\$0.00	HIGH RATE SHOWED HIGHER LEAF TISSUE S & Mn THAN ZERO RATE
DRY STARTER (7+18+48)	130.6	a	\$15.60	\$26.63	LIQUID (+1+8+8 +5 Zn) & (0+0+23) DRY	131.0	a	\$28.88	\$13.36	TRT C: FOOD GRADE LIQUID, CHELATED Zn + 38 LBS KCl PREPLANT
(0+0+60) AS STARTER	51.2	a	\$7.75	\$43.47	LIQUID STARTER (8+18+17)	49.6	b	\$41.92	\$0.00	LIQUID FERT. STRIPS HAD SIGNIFICANTLY MORE WEEDS IN THE ROW
(40+0+60) FROM 28% N & KCl	112.9	a	\$16.83	\$25.09	LIQUID STARTER (8+18+17)	113.0	a	\$41.92	\$0.00	LEAF TISSUE IN (40+0+60) SHOWED SIG. GREATER K, LESS Ca & Mg
26+18+60 STARTER FERTILIZER	122.0	a	\$16.26	\$6.98	56+18+60 STARTER FERTILIZER	124.1	a	\$23.24	\$0.00	NO SIGNIFICANT DIFFERENCES IN LEAF TISSUE NUTRIENTS
P FROM DAP, N ADJUSTED	107.4	a	\$25.00	\$1.23	P FROM MAP, N ADJUSTED	106.5	a	\$26.24	\$0.00	THEORY: MAP P IS MORE AVAILABLE THAN DAP P. (N EQUALIZED)
140 LBS N (90 SIDEDRESS)	145.1	b	\$32.47	\$0.00	165 LBS N (115 SIDEDRESS)	149.6	a	\$38.29	\$4.86	HIGH RATE YIELD WAS SIGNIFICANTLY GREATER THAN LOW & MIDDLE
53 LBS N (50 SIDEDRESS)	173.5	a	\$19.80	\$12.80	113 LBS N (110 SIDEDRESS)	161.7	a	\$32.61	\$0.00	LATE SPRING NITRATE TEST 9 PPM. RECOMMENDATION: 110-160 LBS N
122 LBS N (90 SIDEDRESS)	123.9	a	\$47.24	\$6.98	152 LBS N (120 SIDEDRESS)	123.4	a	\$54.22	\$0.00	LATE SPRING TEST 13 PPM: 80-130 LBS N SIDEDRESS RECOMMENDED

## OTHER TRIALS

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COOPERATOR	CROP	TREATMENT "A"		TREATMENT "B"	TRT "B"	DIFFERENCE					COMMENT
		DESCRIPTION	YIELD (bu.)	DESCRIPTION		YIELD (bu.)	YIELD DIF.	YLD LSD	YLD SIG.	\$ BENEFIT OF TRT "A"	
BAUER	CORN	HARVEST ON OCTOBER 3	161.4	HARVEST ON OCTOBER 23		157.7	3.7	6.3	N.S.	(\$11.22)	5.7% MOISTURE DIFFERENCE SAVED DRYING, HAULING
DORDT	ALFALFA	MULTILEAF, (TRIPPER NURSE CROP)	3.6 T	STANDARD VAR. (WITH TRIPPER)		3.8	-0.2	0.4	N.S.	\$0.00	SAME SEED COST, CRUDE PROTEIN, & REL. FOOD VAL.
REICHERTS	OATS	BIN-RUN OATS (VAR. DON)	29.4	PURCHASED SEED (VAR. DON)		25.6	3.9	4.5	N.S.	\$3.19	4.25 BU/ACRE SEEDING, COST OF BIN-RUN INCLUDES CLEANING
REICHERTS	SOYBEANS	BIN-RUN BEANS (RIVERSIDE 3033)	45.6	PURCHASED SEED (3033)		46.0	-0.4	0.9	N.S.	\$7.83	1.74 BU/ACRE SEEDING, COST OF BIN-RUN INCLUDES CLEANING
THOMPSON	CORN	30,000 PLANTS/ACRE	127.8	27,000 PLANTS/ACRE		124.2	3.6	2.7	*	\$5.48	
THOMPSON	CORN	NARROW STRIPS, RIDGE-TILL	141.0	CROP BLOCKS, CONVENTIONAL TILL		120.1	21.0	7.7	*	\$72.97	OVERALL ALTERNATIVE SYSTEM BENEFIT: \$24.23
THOMPSON	SOYBEANS	NARROW STRIPS, RIDGE-TILL	47.5	CROP BLOCKS, CONVENTIONAL TILL		49.7	-2.1	4.4	N.S.	\$39.89	(BECAUSE OATS IN ALTERNATIVE SYSTEM LOST MONEY)
CARLSON	CORN	"AROUSE" MICROBIAL SEED TRT	93.5	NO SEED TREATMENT		91.2	2.2	3.0	N.S.	(\$13.65)	
MAYS	SOYBEAN	"BIOROOT+" ROOT STIMULANT	54.8	NO ROOT STIMULANT		56.3	-1.5	3.9	N.S.	(\$7.20)	
DAVIDSON	SOYBEANS	RIDGE-TILL. BURNDOWN, 2 CULTIVATIONS	38.6	NO-TILL. BURNDOWN, 2 POSTEMERGE SPRAYS		40.6	-2.1	1.7	*	\$20.18	INCLUDING SEED, RIDGE-TILL COSTS \$41.84, NO-TILL \$74.34

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