

Section IV.  
Cereal Crop Pests

FALL-SEEDED WHEAT SEED TREATMENT

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RCBD on-farm size trials of Madsen wheat were seeded 10-9-00, and emerged 10-20-00. All farming was done by Kurt Tetrick ARS Farm Manager of CFRF located in Garfield County, WA on the Snake River. BCOA alates arrived 10-23-00 with total freeze up on 11-7-00. A foliar application of Lambda-cyhalothrin (Warrior 1 T™ at 0.24 pint/ac) was made on 10-24-00 for the aphid population. The Madsen used was untreated certified seed in 8 treatments of 4 reps of 45 x 360 feet each on trials on pea, summer fallow, potato, and recrop wheat ground. A heavy disease load of *Pythium*, *Rhizoctonia*, *Fusarium*, and *Cephalosporium* were present in all trial areas. Evaluation for BYDV on 1-15-01 showed no visible symptoms. BCOA (*R. padi*) was 30% apterous aphids in non-insecticide treatments on 10-28-00. Yield data was collected by combine samples from all replicates on 8-15-01. The data show that SD does exist between yields of the treatments on the rotation trials, even in the absence of large BCOA numbers, and BYDV symptoms. There is no fungicide control of *Fusarium* spp. and *Cephalosporium* stripe. *Pythium* was noticeable in the fall during emergence. Root stunting by *R. padi* feeding was observed in the UTC and Lindane treatments in all 4 trials. One wireworm was found in sampling over the entire 4.7acre trial area in a single UTC treatment. The low Gaucho rates were designed to compare wireworm control with a UTC and Lindane. Insufficient wireworm exists at CFRF to conduct accurate trials. The high rate of Gaucho 480 (1.5 oz/cwt), and Warrior 1 T 0.24 pt/ac, in the recrop wheat rotation trial, produced a yield response SD from other treatments indicating control of BCOA by these treatments. Treatments in the other rotation trials varied with almost all insecticide/fungicide combinations providing SD yield increases over the UTC. IPM of fall-seeded wheat is enhanced by a seed treatment combination of insecticide and fungicide. Data appear in the table below:



### Mean Yield Bu/Ac for Trials on Rotations

Treatment	Pea	SF	Potato	Recrop	All Trials
UTC	55.8a	78.6a	84.3a	46.7a	66.4a
Gaucha XT	66.1ab	77.8a	76.4a	45.6a	66.5a
Lindane/Div/Apron	84.3b	84.3b	82.1a	55.8a	68.9a
Lindane/Raxil/MD	78.6b	84.3b	83.1a	75.2b	74.9b
Warrior .24/Raxil MD	78.6b	85.5b	91.2b	82.1b	84.3c
Gaucha 0.16/Raxil MD	83.2b	87.7b	90.0b	63.8ab	81.2c
Gaucha 0.32/Raxil MD	85.5b	84.3b	98.0c	60.4a	82.0c
Gaucha 1.5 oz/Raxil MD	86.6b	86.6b	95.7c	85.5b	87.7c

ANOVA: LSD t Test 0.05. Numbers followed by the same letter are NSD.