

A11. HERBICIDE + INSECTICIDE COMBINATIONS have increased crop injury compared to either pesticide applied alone. Efficacy data on herbicide-insecticide mixtures are limited because of the number of potential combinations. Non-registered tank-mixtures should be used with caution until experience or research has shown that the combination is effective and safe. The following information is based on label restrictions and/or research indicating crop injury or decreased control.

2,4-D: Wheat injury but not lower wheat yield with 2,4-D amine combined with Lorsban, 2,4-D, Banvel*, Bronate*, or Curtail* mixed with Asana, Cygon, Di-Syston, Warrior, or Lorsban caused no wheat injury in U. of Wyoming studies.

Dicamba: Oil-based insecticides increase risk of wheat injury.

POST Grass Herbicide:

Assure II*, Fusilade DX, Fusion, Poast, and Select*:

Reduced grass control may result from tank-mixes of Fusilade DX with Lorsban, malathion, Sevin XLR, or Pydrin, or Poast mixed with Sevin XLR Plus or Pydrin. No decrease in grass control resulted from Poast tank-mixed with Lorsban or malathion.

Sulfonylurea Herbicides (SU): Severe crop injury may result from tank-mixing SU herbicides with organophosphate insecticides. Most SU labels do not allow addition of Lorsban or malathion. SU herbicides and insecticides should be tank-mixed only when experience or research indicated crop safety.

HERBICIDE + FUNGICIDE COMBINATIONS may cause crop injury. Refer to the following table for additional information.

Herbicide/Fungicide Combinations For Small Grains.

Herbicide	Mancozeb	Mancozeb + adjuvant	Tebuconazole	Tilt
Affinity, Aim, Axial XL/Star, Banvel*, Curtail*/M*, Discover NG, Everest 2.0, Express*, MCPA, Orion, Pulsar, Puma*, Starane* =	NP	Yes	-	NP
Bromoxynil + MCPA	SL	NN	-	NP
Bromoxynil	SL	NN	-	NP
Huskie	NP	-	P	-
Huskie Com.	NP	-	P	-
Rimfire Max	P	-	P	-
Wolvrne Adv	NP	-	P	-
Varro	-	-	P	Yes
2,4-D	NP	NP	-	Yes

P = Prohibited, NP = Not prohibited, NN = Not needed, SL = See label, Y = Yes, if required.

*Or generic equivalent.

NDSU studies show Puma* or Discover plus Bronate Advanced applied with the strobilurin fungicides of Quadris, Quilt, Headline, and Gem cause severe leaf burn on wheat; new tissue that emerged was unaffected. Bronate, or generic formulations, plus strobiluron fungicides may also cause similar injury.

HERBICIDE + LIQUID-FERTILIZER COMBINATIONS

require thorough mixing and continuous agitation to obtain even application. Some herbicide + fertilizer combinations will not form a uniform mixture even with agitation. To test, combine small quantities of components to be mixed in the same proportions used in the sprayer tank. One tsp of liquid herbicide in 1.5 pt of fertilizer is equivalent to 1 qt of herbicide in 35 gal of fertilizer. One tsp of DG granules in 1.5 pt of fertilizer is equivalent to 1 lb of DG in 16 gal of fertilizer. One tsp of WP in 1.5 pt of fertilizer is equivalent to 1 lb of WP powder in 32 gal of fertilizer. WP and DG formulations should be

mixed with water to form a slurry before adding to fertilizer. Shake after mixing.

Watch the mixture for 30 minutes. If the mixture does not separate, the combination is compatible. If the mixture separates or gets very thick or syrupy, do not use. Mixing ability may be improved by adding a compatibility agent. Batches of fertilizer may differ in mixing properties and should be tested separately.

HERBICIDE + DRY-FERTILIZER COMBINATIONS created by impregnation on dry bulk fertilizer are used. Read the label for use directions. Ammonium sulfate, ammonium phosphate-sulfate, diammonium phosphate, potassium chloride, superphosphate, treble superphosphate, and urea are approved fertilizer materials for impregnation. Impregnated fertilizer should be applied and incorporated according to label instructions. Consult the herbicide label for minimum amount of fertilizer/A and maximum amounts of herbicide per given weight of fertilizer. Apply at least 200 to 400 lb/A of dry bulk fertilizer to maintain uniform herbicide application.