Study Name: Sunflower tolerance to Assert (0719)

Objectives: Evaluate sunflower tolerance to Assert tank mixed with other herbicides and adjuvants.

Results:
Postemergence treatments were applied at the V4-V6 leaf stage. Crop stunting and chlorosis was worse where Assert was tank mixed with Select + AMS + NIS. Injury decreased slightly when Select or AMS was not included with Assert. However, any treatment that contained Assert resulted in approximately 60% deformed heads and 50% yield loss. The Assert label states that treatments should be applied between the 2- and 8-leaf stages. These treatments were applied within that timeframe. These results are almost exactly the same as a similar study in 2006. More research is needed to determine if certain varieties are particularly sensitive to Assert.

			Sunflower			Height	Yield	TW
			% injury		% deformed heads	inches	lb/A	lb/bu
Treatment[a]	Rate[b]	Timing	Jun 26	Jul 7	Jul 29	Jul 6		
Untreated			0	0	1	20.1	1520	32.9
Select Max + AMS	9 fl oz + 7.35g/100 g	V4-V6	6	9	7	18.8	1669	33.0
Select Max + Assert + AMS	9 fl oz + 0.8pt + 7.35g/100g	V4-V6	27	38	60	14.9	835	31.8
Select Max + Assert	9fl oz + 0.8pt	V4-V6	27	30	62	16.6	805	32.7
Assert	0.8pt	V4-V6	19	18	57	17.5	852	33.1
LSD (0.05)			4	16	14	3.1	606	2.5
CV			13	44	20	9	28	4

[a] *Spartan + Prowl H_2O (3 fl oz + 2.6 pt) was applied to all treatments preemergence; All postemergence treatments were applied with NIS (0.25 % v/v).*
[b] *g/100 g = gallons/100 gallons*