

PEA HERBICIDE RESEARCH REPORT—2014

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The primary focus of the herbicide trials with peas was to evaluate crop tolerance to four relatively new products to support possible registrations through IR-4. Trials are being conducted in several states on multiple specialty crops. The products are pyroxasulfone, acetochlor (both showed promise in the 2013 trials), GWN-10293, and A16003. While pyroxasulfone and acetochlor are preemergence herbicides, similar in activity with Dual Magnum and Outlook, the GWN-10293 and A 16003 products have both preemergence and postemergence activity and are potentially new classes of chemistries.

The planting season was very difficult. The extremely cold weather through the end of March and into April led to virtually frozen soils early in the season. This led to difficulties with soil preparation for planting and also to non-uniform seeding with planters in the early crops, including peas. In addition to the seeding problems the trial was over-run by pigeons and geese which devoured 80% of the crop. As a result we were unable to get yield data this year.

Results: Peas tolerated both pyroxasulfone and acetochlor preemergence at both low and high rates (Table 1). While there was a small amount of early stunting it was quickly outgrown. With GWN-10293 the lower rate applied preemergence produced a small amount of early stunting which was also outgrown. The higher rate caused significant injury and the post-emergence application did not work at all. Similar to the previous product, A-16003 was also safe when applied at the lower rate preemergence but was not acceptable at the higher rate nor when applied post-emergence.

While all of the products provided control on common broadleaf weeds (e.g. redroot pigweed, c. lambsquarters, h. galinsoga) there were heavy populations of wild buckwheat, PA smartweed and field pennycress which were poorly controlled.

Evaluating New Herbicides for Peas, 2014

Trt No.	Treatment	Form	Rate	Growth Stage	Stunting 6/10/201	Chlorosis 6/10/201	Stunting 6/17/201	Chlorosis 6/17/201
1	Dual Magnum	7.62EC	0.96	PRE	7	0	0	0
	Reflex	2L	0.25	PRE				
2	GWN 10293	50WG	0.066	PRE	23	20	5	0
3	GWN 10293	50WG	0.133	PRE	63	63.3	57	0
4	GWN 10293	50WG	0.066	PST			0	50
	NIS 0.25%		0.25	PST				
5	GWN 10293	50WG	0.133	PST			0	50
	NIS 0.25%		0.25	PST				
6	A-16003	1.67L	0.033	PRE	3	10	0	0
7	A-16003	1.67L	0.045	PRE	18	25	13	0
8	A-16003	1.67L	0.089	PRE	70	80	70	0
9	A-16003	1.67L	0.045	PST			0	50
	NIS 0.25%		0.25	PST				
10	A-16003	1.67L	0.089	PST			0	50
	NIS 0.25%		0.25	PST				
11	Pyroxasulfone	85WG	0.06	PRE	0	0	0	0
12	Pyroxasulfone	85WG	0.12	PRE	12	0	0	0
13	Acetochlor	7EC	0.4	PRE	10	0	0	0
14	Acetochlor	7EC	0.6	PRE	15	0	10	0