Acuron – 4 Actives, 3 Herbicide Groups

The EPA recently approved Acuron, a new product from Syngenta. The product contains bicyclopyrone, a new Group 27 herbicide. Herbicides in this group interfere with the HPPD enzyme, disrupting synthesis of carotene pigments.

Acuron is a premix of four herbicides representing three herbicide groups. It is similar to Lumax in that it contains Group 27, 15 and 5 herbicides. A comparison of the makeup of Acuron and Lumax EZ is presented in Table 1. The rates listed in the table are recommended for soils with greater than 3% organic matter. Bicyclopyrone has a higher specific activity than mesotrione (Callisto), thus it is used at lower rates. It also has better activity on grasses than mesotrione, thus its inclusion in Acuron allows lower rates of *S*-metolachlor than used in Lumax. One of the major advantages of Acuron over Lumax is the reduction in active ingredient introduced into the environment. Bicyclopyrone has better activity on large-seeded broadleaves such as giant ragweed and cocklebur, and therefore Acuron may provide more consistent control of these weeds than Lumax and similar herbicides.

Table 1. Acuron vs Lumax: Active Ingredients

	Acuron		**Lumax EZ**		**HG**
	lbs/gal	lbs/A @3 qts/A	lbs/gal	lbs/A @3.25 qts/A	
S-metolachlor	2.14	1.60	2.49	2.00	15
atrazine	1.00	0.75	0.94	0.71	5
mesotrione	0.24	0.18	0.25	0.20	27
bicyclopyrone	0.06	0.05		-	27
Total ai/A		**2.58**		**2.91**	

Acuron is registered for field, seed, silage, sweet corn and yellow popcorn. It is labeled for EPP and preemergence surface applications on the above corn types, and can be applied postemergence to corn less than 12" on field, silage and seed corn. There is a 4 month rotation restriction for small grains and 10 month for soybean and sorghum.

Performance of Acuron should be similar to other broad-spectrum, preemergence products on the market. In terms of managing herbicide resistance, it brings nothing new to the table since it contains herbicides from groups already widely used across the Cornbelt. The lower metolachlor rate present in Acuron will result in greater selection pressure from the Group 27 herbicides than with Lumax or other products that have a full rate of a Group 15 herbicide. The reduced pesticide load with Acuron is one of the major advantages of this new herbicide.

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Bob Hartzler
hartzler@iastate.edu