

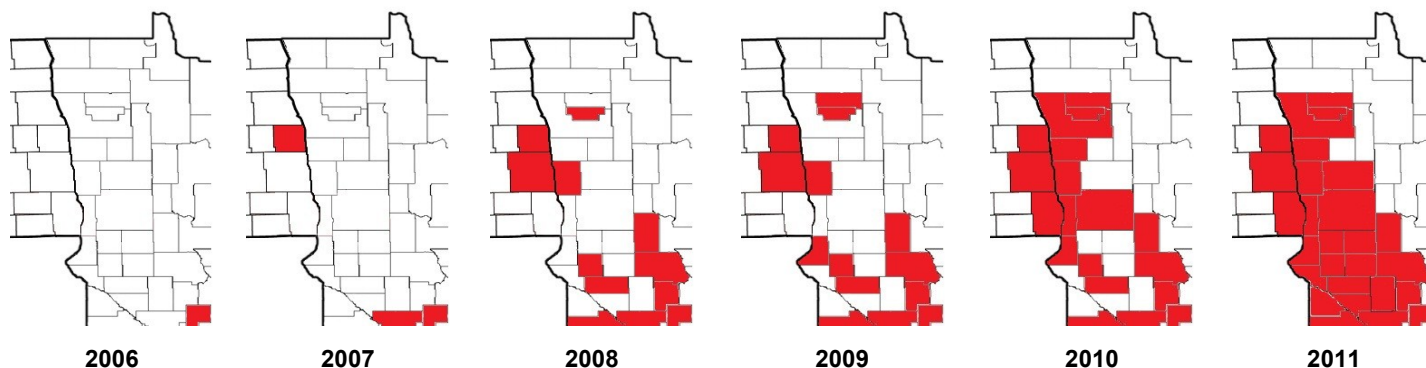


## Respect the Rotation...

ISSUE 02 - Oct 2011  
Mike Metzger - Editor

Over the past few growing seasons, you have undoubtedly been to a meeting of some sort where weed resistance was brought up in one form or another – and while many growers seem to roll their eyes when the subject is brought up, the sad truth is that nobody is blowing smoke at you - weed resistance is here and it is very real.

Resistance to many common herbicide compounds (such as atrazine and ALS inhibitors) has been quietly developing over the past two decades and unfortunately, so has the resistance to glyphosate. Although nearly a dozen weed species within the US have had documented resistance to this non-selective herbicide, MN and ND have only had cases of common ragweed, giant ragweed and waterhemp. Dr. Jeff Stachler and Dr. Mike Christoffers at North Dakota State University have put together the follow maps showing the documented progression of these three weed species in our growing area over the past five years:



The maps above naturally beg the question, “What should I be doing to prevent weed resistance on my farm?” Here are several key strategies to consider: **Lengthen Crop Rotation** – A longer crop rotation will provide a greater opportunity for herbicide diversity. **Rotate Herbicide Tolerant Traits** – Alternate herbicide tolerant traits or use herbicide tolerant stacks for a more efficient rotation of both non-selective and selective herbicides. One of many excellent examples would be utilizing the SmartStax System on corn by applying Roundup for the first application and Ignite for the second. **Rotate Modes of Action** – Rotating modes of action is essential to improve resistance management on your farm. Rotating and using multiple modes of action reduces the selection pressure caused by overusing a single chemistry. Using a residual herbicide before glyphosate and/or tank mixing other herbicide modes of action with glyphosate on Roundup Ready crops is becoming a necessity. While not a popular option, conventional corn and soybeans actually offer the widest range of herbicide options. **Utilize Mechanical Weed Control** – Use row crop cultivation and hand labor when necessary. **All of the Above** – Best to use multiple practices, as no single strategy is likely to be completely effective.

### Beware of Snake Oils!!!

With beet harvest in the rearview mirror, many growers have already begun planning for their 2012 crop. Amongst the seed selection and fertility recommendations, sales reps always seem to have a whole range of new products in their portfolio for you to choose from – and while many are good, solid products with a proven per acre return, this typically is the time of year that all sorts “snake oils” come out of the woodwork. Please try to keep in mind that if the performance claimed by these types of products sounds too good to be true, it usually is. NDSU and U of M research programs, as well as your Agriculturist, remain the best sources for credible information on these questionable products and should be consulted before you make any type of purchase and/or application. Remember, if they really worked like they claim to, everyone would be using them...

## Liberty Link Soybeans - Should I or Shouldn't I...

Over the past few years, LibertyLink soybeans have gained regional momentum as an effective weed management tool. The things that are driving their growth: resistant weeds, rotational concerns and better performance in tougher areas of the field. Whether the problem area has high salts, high pH or if it is just generally sour ground, almost all of the LibertyLink varieties seen to date have effective defensive qualities without giving up yield potential.

Although Bayer Crop Science has broadly licensed the LibertyLink trait through more than 100 seed companies nation-wide, one regional brand seems to have recognized the hand-writing on the wall and prepared to meet the problem. Peterson Farms Seed offers an impressive LibertyLink product lineup across maturities and is ready to meet grower demand for 2012.

The table below summarizes Peterson Farms Seed LibertyLink soybeans compared to proven Roundup Ready2Yield varieties. Across multiple locations, the LibertyLink varieties averaged 39.6 bu/A in last year's trials while the Roundup Ready2Yield varieties averaged 38.7 bu/A. It is clear that LibertyLink soybeans have comparable yields and defensive traits that give sugar beet producers a tool to proactively manage weed resistance.



**Rate:** 29 fl oz/A  
**Spray Volume:** 10 - 15 GPA  
**Nozzle Type:** Flat Fan  
**Nozzle Pressure:** 40 - 60 PSI  
**Droplet Size:** 300 Microns  
**Aerial Label:** Yes  
**Required AMS:** 2 - 3 lbs/A  
**Target Weed Size:** 3 - 4 Inches



To learn more about these varieties please call Jonathan Aal at Peterson Farms Seed

(866) 481-7333

Variety	Mayville	Valley City	Verona	Harwood	Wyndmere	Average	% Mean	Maturity
11R12 RR2Y	37.3	46.2	36.4	48.9	49.7	43.7	111%	1.2
L14-11N	34.0	53.9	34.9	41.2	45.4	41.9	107%	1.4
11R10 RR2Y	24.9	52.6	37.5	45.7	42.0	40.5	103%	1.0
L05-11N LL	31.0	46.2	33.4	44.8	43.9	39.9	102%	0.5
11R13N RR2Y	21.6	52.3	36.2	41.2	44.7	39.2	100%	1.3
L08-11 LL	30.5	44.9	40.2	39.3	41.1	39.2	100%	0.8
L10-11N	33.9	49.6	26.1	45.5	40.5	39.1	100%	1.0
L03-12N LL	27.7	49.0	35.6	40.6	38.0	38.2	97%	0.3
11R03 RR2Y	27.7	45.2	31.1	42.5	33.5	36.0	92%	0.3
11R02 RR2Y	33.2	47.1	25.1	35.8	29.7	34.2	87%	0.2

## Don't Forget to Take Your Potassium...

Although growers know that potassium is one of the three major nutrients used by the sugarbeet crop during the growing season – very few actually know why...

Essential for early vigor and growth, sugarbeets have a very high requirement for potassium and actually absorb more of this nutrient than any other mineral available in the soil. The beets do this because potassium is responsible for maintaining the electrical balance within the plant, as well as performing and aiding in many metabolic functions and enzyme reactions.

Being highly mobile within the plant, it has been found that the beet tops contain 1.5 times greater the amount of potassium than the roots – this is very beneficial, considering that potassium in the root combined with sodium and amino-nitrogen, are the major impurities in the factory process. These elements (along with their associated salts) will prevent a certain amount of sugar from crystallizing – causing it to remain in the molasses. This is loss is attributed to the “purity” of the sugarbeet and is one of the most important values measured when a tare sample is collected during harvest. Growers can help minimize this loss by staying in the recommended potassium fertility guidelines found in your NDSU/U of M Sugarbeet Production Guide:

	Very Low	Low	Medium	High
<b>K Soil Test Levels (ppm)</b>	0 - 40	41 - 80	81 - 120	> 121
<b>Lbs/A of K<sub>2</sub>O to Apply</b>	110	80	50	0