



## Variety Selection for a Successful 2013...

When the Minn-Dak Seed Committee meets in early November to select which varieties will be allowed to be planted for the coming season, they carefully evaluate and study the very same data that is sent out in your seed packets. What is interesting is that while most individuals view this information as a simple sheet of summarized statistics, the reality is that it is actually a season-long project that involves extensive planning and organization, meticulous plot care and significant expenditures.

Minn-Dak coded variety trials are designed with one thing in mind - to provide both the seed committee and growers with an unbiased assessment of the genetic potential of each sugar-beet variety grown within the cooperative. This is accomplished by subjecting the varieties in question to several different environmental conditions ranging from yield trials to disease nurseries. To help each variety remain “anonymous” throughout



the growing season, all of the seed in the trials is assigned a code before planting (by scientists at the NWROC - Crookston) so that no one knows the identity of the individual variety until harvest is completed and the data has been analyzed. Once the seed has been coded, the trials are placed within commercial Minn-Dak fields generally planted crosswise (90°) to the cooperators’ normal farming operations. Arranged in an alpha lattice design, the 44-foot long plots have a row spacing of 22 inches and are considered plant-to-stand (4.5 inch seed spacing).

### Seed Info Online

The 2013 Seed Packet & Trial Summary can be found in the “Research & Resource” section of the Minn-Dak Agriculture website.



This past year, each of the varieties that were considered by the Seed Committee were sown in four separate yield trials located near Barnesville, Foxhome and Norcross, MN and Fairmount, ND. In addition to these locations, the varieties were also challenged in three different Cercospora Nurseries (two in MN and one in MI), an Aphanomyces Nursery (Shakopee, MN), two Rhizoctonia Nurseries (MN & CO) and three MN-based Fusarium Nurseries. Data acquired from all of these locations is then utilized to generate a three-year average for each variety (2-yr if it’s a newer variety) that is compared to several standardized varietal “checks.” This statistical comparison allows for the establishment of a categorical segregation of each of the varieties submitted. This entire process ensures the use of high quality, defensive and productive varieties to maximize per acre returns for Minn-Dak growers and the cooperative as a whole.

## Top 10 Varieties of 2012...

### Recoverable Sugar per Acre

3-Year Mean and Percentage of Mean		
Variety	RSA	Rank
Beta 7070 (Rzc)	114.04	1
ACH 830 (Rzc)	112.09	2
Beta 7099	110.18	3
ACH 012 (Rzc)	108.48	4
Seedex Vapor	108.47	5
Beta 7064 (Aph)	106.74	6
SES/Vdh 36926	106.55	7
Seedex Wildcat	106.54	8
Seedex Ultra	105.78	9
SES/Vdh 36927	105.35	10

### Aphanomyces Root Rating

2-Year Mean and Percentage of Mean		
Variety	2-Yr Mn	Rank
SES/Vdh 36188 (Aph)	4.31	1
Beta 7064 (Aph)	4.40	2
SES/Vdh 36927	4.61	3
SES/Vdh 36187	4.67	4
Seedex Wildcat	4.68	5
SES/Vdh 36185	4.72	6
Beta 7099	4.74	7
Hilleshög 4251 (Rzc)	4.75	8
SES/Vdh 36084	4.76	9
Hilleshög 4303	4.78	10

### Fusarium Root Rating

3-Year Mean		
Variety	Rating	Rank
ACH 830 (Rzc)	3.29	1
Seedex Ultra	4.44	2
Hilleshög 4022 (Rzc)	4.52	3
SES/Vdh 36927	4.52	3
SES/Vdh 36926	4.59	4
Hilleshög 4062 (Rzc)	4.64	5
Seedex Vapor	4.85	6
SES/Vdh 36084	4.97	7
Hilleshög 4204 (Rzc)	6.01	8

### Recoverable Sugar per Ton

3-Year Mean and Percentage of Mean		
Variety	RST	Rank
Beta 7099	103.47	1
ACH 012 (Rzc)	103.41	2
Beta 7070 (Rzc)	102.59	3
Beta 7064 (Aph)	102.48	4
SES/Vdh 36084	102.11	5
SES/Vdh 36926	102.06	6
Seedex Wildcat	101.04	7
Hilleshög 4022 (Rzc)	100.87	8
Seedex Vapor	100.24	9
Seedex Ultra	99.51	10

### Rhizoctonia Root Rating

3-Year Mean and Percentage of Mean		
Variety	3-Yr Mn	Rank
Hilleshög 4062 (Rzc)	3.34	1
Hilleshög 4022 (Rzc)	3.44	2
ACH 830 (Rzc)	3.70	3
Hilleshög 4204 (Rzc)	3.72	4
Hilleshög 4251 (Rzc)	3.73	5
ACH 012 (Rzc)	3.75	6
Beta 7070 (Rzc)	3.81	7
Beta 7099	3.88	8
Seedex Vapor	4.17	9
Seedex Ultra	4.29	10

### Cercospora Leaf Spot Rating

3-Year Mean		
Variety	Rating	Rank
Hilleshög 4062 (Rzc)	4.23	1
SES/Vdh 36927	4.28	2
Hilleshög 4022 (Rzc)	4.29	3
Hilleshög 4251 (Rzc)	4.31	4
SES/Vdh 36926	4.39	5
Beta 7099	4.45	6
Seedex Wildcat	4.46	7
Hilleshög 4204 (Rzc)	4.55	8
Seedex Vapor	4.57	9
ACH 012 (Rzc)	4.64	10

-- An Aphanomyces root rating of 4.45 or less must be obtained to be considered "Aphanomyces Specialty" --  
 -- An Rhizoctonia root rating of 3.82 or less must be obtained to be considered "Rhizoctonia Specialty" --