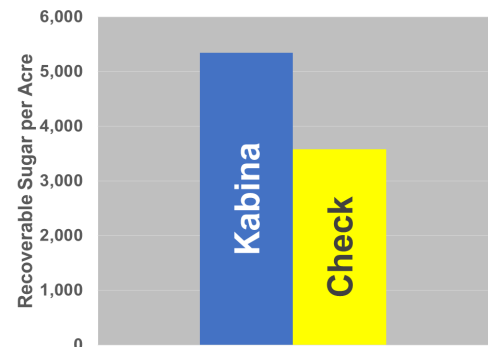




## Kabina Use for 2015 ...

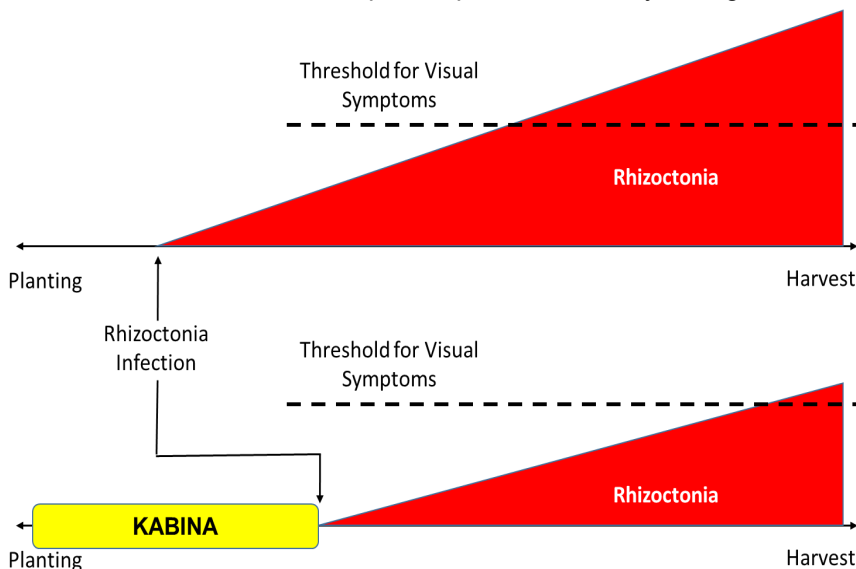
Over the past several years, fungicidal seed treatments have gained a lot of popularity in the sugarbeet seed market. The general idea behind this concept is that fungicidal seed treatments provide roughly 4-6 weeks of protection for the sugarbeets post-planting. This added protection allows the young seedlings to germinate, emerge and grow to the 4-6 leaf stage in somewhat of a “disease-free” environment. From this point on, the genetic resistance will be present in full-force. Of the numerous products tested to date, one product has repeatedly stood out above the rest when it comes to Rhizoctonia control - Kabina.

Several years of field trials conducted at both Minn-Dak Farmers Cooperative (MDFC) and land-grant universities have shown that Kabina not only provides early-season Rhizoctonia control, but is also very safe to the seed itself. The following chart represents the average Recoverable Sugar Per Acre (RSA) from plots planted at MDFC’s inoculated disease nursery to a Rhizoctonia specialty variety treated with (blue bar) and without (yellow bar) Kabina. The RSA for the Kabina-treated plots averaged 5,344 lbs. whereas the untreated plots only yielded 3,579 lbs. **– a difference of just over 1,750 lbs./acre!!!**



While the chart to the right shows the clear benefits of Kabina-treated seed in a Rhizoctonia infested field, it also begs the question of how a fungicide that lasts for only 4-6 weeks in the earliest part of the growing season has such a dramatic impact on the tail end. The answer is actually a lot simpler than you think...

I like to use the analogy of a kid trying ride a bike when their training wheels are first taken off. If you expect them to start off on their own, they will undoubtedly struggle and fall over – but if they get a little help from Mom or Dad running behind them and hanging on to the bike for the first 20 yards, they can take off and go on their own. The diagram below represents a similar scenario with Kabina use in sugarbeets. The black line on the bottom represents a typical growing season from planting all the way to harvest. As soon as the soils warm up in the spring, Rhizoctonia becomes active in the soil and will attack the sugarbeet. The red triangle represents the level/severity of Rhizoctonia present on the sugarbeet from the initial infection all the way through harvest. On a normal year, we will start to see physical symptoms typical of Rhizoctonia (dotted line) around mid-to-late July, even though the infection took place much earlier in the season. If the environment is conducive for disease development, Rhizoctonia will continue to develop and spread all the way through harvest or until it kills the beet, whichever comes first.



The initial protection offered by seed treatments like Kabina help delay the onset of Rhizoctonia infection (indicated by the yellow rectangle) even though it is active in the soil. This delay allows the beet to be a lot more mature and therefore resistant not only to the initial infection, but to the rate at which the disease is able to progress on the plant itself. The end result is a much healthier sugarbeet at harvest which will not get knocked out of the row during defoliation, will not be a “bad apple” in the storage piles (causing damage to others around it) and will be less likely to cause complications during factory processing - all of which add to your bottom line and overall return per acre.

## Top 10 Varieties For 2015...

### Recoverable Sugar per Acre

#### 3-Year Percentage of Commercial Mean

Variety	RSA (%)	Rank
ACH 260 (Aph)	113.93	1
ACH 228 (Aph)	107.48	2
Beta 7099 (Aph)	105.59	3
ACH 830 (Aph-Rzc)	105.12	4
Maribo 102 (Aph)	103.88	5
Hilleshög 4448	103.16	6
Beta 7222 (Aph)	102.50	7
ACH 012 (Aph-Rzc)	101.93	8
Seedex Vapor	100.23	9
Beta 7295 (Aph-Rzc)	97.26	10

### Aphanomyces Root Rating

#### 3-Year Root Rot Index Mean

Variety	3-Yr Mean	Rank
Beta 7222 (Aph)	2.91	1
ACH 228 (Aph)	3.06	2
Beta 7295 (Aph-Rzc)	3.96	3
Maribo 102 (Aph)	4.20	4
ACH 260 (Aph)	4.44	5

#### 2-Year Root Rot Index Mean

Variety	2-Yr Mean	Rank
Beta 7099 (Aph)	4.04	1
Hilleshög 4062 (Aph-Rzc)	4.14	2
ACH 830 (Aph-Rzc)	4.27	3
ACH 012 (Aph-Rzc)	4.31	4
Seedex Vapor	5.07	5

### Fusarium Root Rating

#### 3-Year Root Rot Index Mean

Variety	3-Yr Mean	Rank
Beta 7099 (Aph)	3.27	1
ACH 012 (Aph-Rzc)	3.28	2
ACH 830 (Aph-Rzc)	3.93	3
Hilleshög 4022 (Rzc)	4.73	4
Hilleshög 4062 (Aph-Rzc)	4.78	5

#### 2-Year Root Rot Index Mean

Variety	2-Yr Mean	Rank
Beta 7295 (Aph-Rzc)	2.85	1
ACH 260 (Aph)	3.01	2
Hilleshög 9517 (Aph)	3.59	3
Beta 7222 (Aph)	4.18	4
ACH 228 (Aph)	4.55	5

### Recoverable Sugar per Ton

#### 3-Year Percentage of Commercial Mean

Variety	RST (%)	Rank
ACH 228 (Aph)	106.26	1
ACH 012 (Aph-Rzc)	103.76	2
Maribo 102 (Aph)	103.55	3
Beta 7099 (Aph)	102.40	4
Beta 7222 (Aph)	102.38	5
Hilleshög 4448	102.35	6
Seedex Vapor	100.65	7
Hilleshög 4062 (Aph-Rzc)	98.90	8
Beta 7295 (Aph-Rzc)	98.79	9
ACH 260 (Aph)	98.35	10

### Rhizoctonia Root Rating

#### 3-Year Root Rot Index Mean

Variety	3-Yr Mean	Rank
Hilleshög 4022 (Rzc)	3.50	1
Hilleshög 4062 (Aph-Rzc)	3.52	2
ACH 012 (Aph-Rzc)	3.68	3
ACH 830 (Aph-Rzc)	3.76	4
Beta 7295 (Aph-Rzc)	3.78	5
Beta 7099 (Aph)	4.04	6
ACH 260 (Aph)	4.27	7
ACH 228 (Aph)	4.43	8
Seedex Vapor	4.46	9
Beta 7222 (Aph)	4.80	10

### Cercospora Leaf Spot Rating

#### 3-Year Foliar Rating Mean

Variety	3-Yr Mean	Rank
Beta 7222 (Aph)	4.13	1
ACH 228 (Aph)	4.30	2
Hilleshög 4022 (Rzc)	4.41	3
ACH 260 (Aph)	4.42	4
Beta 7099 (Aph)	4.42	5
Beta 7295 (Aph-Rzc)	4.43	6
Hilleshög 4062 (Aph-Rzc)	4.50	7
ACH 830 (Aph-Rzc)	4.62	8
ACH 012 (Aph-Rzc)	4.63	9
Seedex Vapor	4.77	10

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