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The Seed Consultant

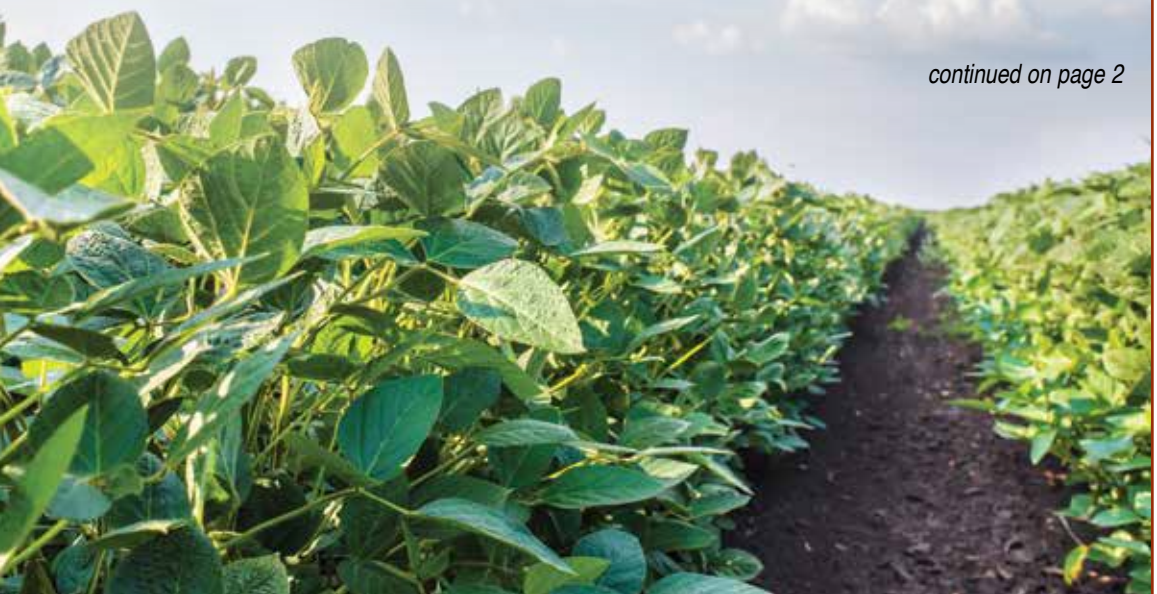
A BI-MONTHLY NEWSLETTER NEWS AND VIEWS FROM THE FIELD

What is the right Maturity and Population for Double Crop Soybeans?

Many of our customers find it profitable to double-crop soybeans. A reoccurring question many of our growers ask is, “What is the right population and which maturity should I plant?” As many of you know, several factors contribute to yield potential such as planting date, final stand populations, varietal selection, soil fertility, rain fall, planting conditions, etc.

According to Jim Beuerlein (now retired OSU Extension Specialist), “late planting reduces our cultural practice options for row spacing, seeding rate and variety maturity. For the last half of June, 225,000 to 250,000 seeds per acre are recommended, and in early July drop 250,000 to 275,000 seeds per acre.”

continued on page 2



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Simply, the Best Value in the Seed Industry™

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What is the Right Maturity... *continued from page 1*

Soybeans are not like corn because they are photo period sensitive. The amount of daylight the plant receives triggers its reproductive cycle. The date and timing of physiological maturity are affected by day length and the stage of seed development in the uppermost pods on the plants. Relative maturity (RM) has little effect on yield for plantings made during the first three weeks of May but the effect can be large for late plantings. During the first half of June, a 4-day delay in planting delays physiological maturity about one day. In the last half of June it takes a 5-day planting delay to delay physiological maturity a day. As planting is delayed, yield potential decreases and there is concern about whether late maturing varieties will mature before a killing frost.

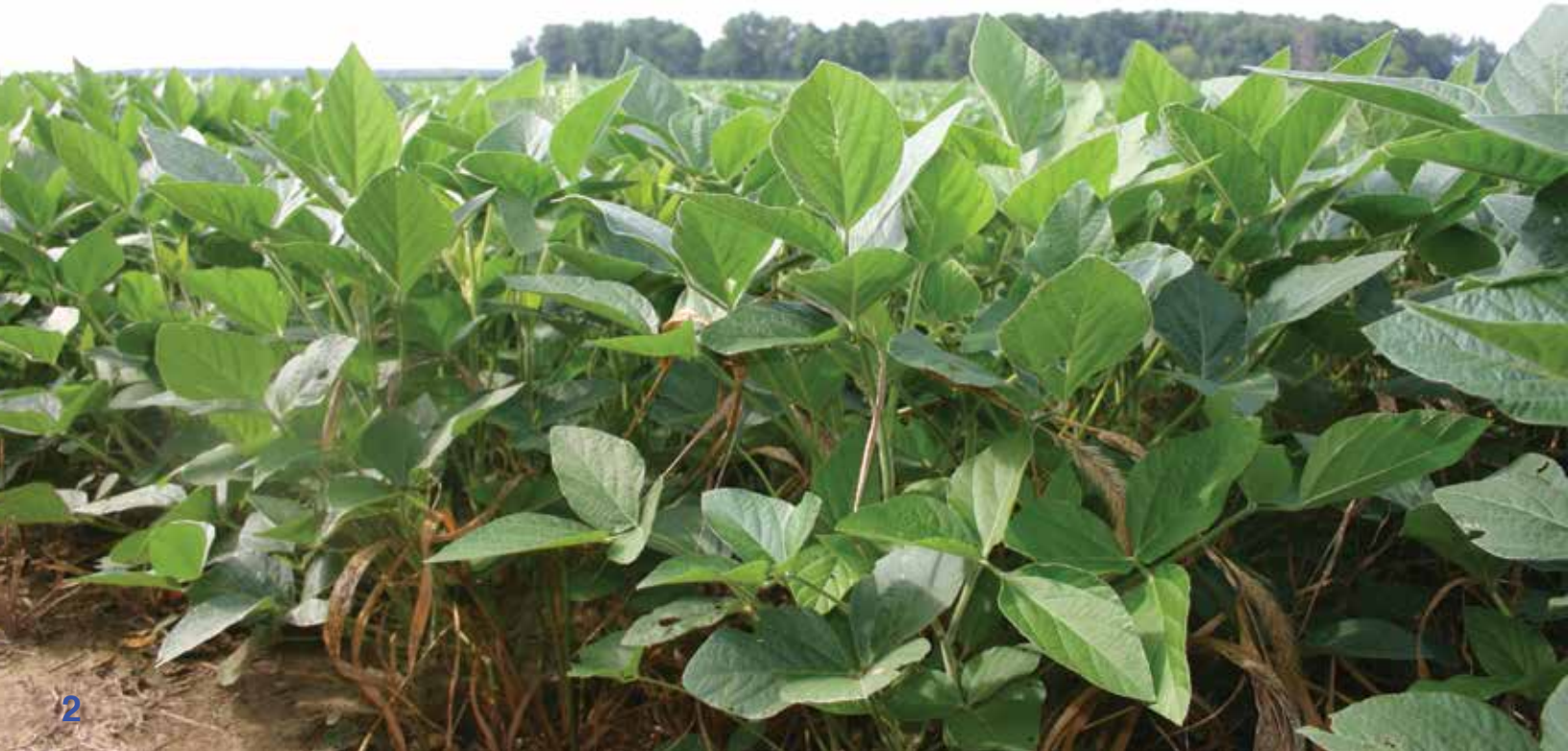
When planting late, the rule-of-thumb is to plant the latest possible maturing variety that will reach physiological maturity before the first killing frost. The reason for using late maturing varieties for late planting is to allow vegetative growth for as long as possible to produce nodes where pods can form before flowering and pod formation. Also, it is recommended to plant taller varieties that will allow for greater amounts of pods to form because more nodes equals more pods and more yield. So we need late maturing varieties that will mature before getting frosted but since we never know when the first frost will occur, we use a narrow maturity range that will not be damaged by frost occurring at the normal time.

Assuming normal weather and frost dates, varieties with the following relative maturity should mature before frost and produce maximum possible yields when planted on the dates indicated. Varieties with an earlier relative maturity will mature earlier but will produce reduced yields (C.O.R.N.).

Region- Ohio and Indiana	Planting Date	Suitable Relative Maturity & SCI Soybean Varieties	Yield Potential
Northern	July 1–15	2.8 – 3.3 (SCS 9273RR™ – SCS 9335RR™)	10 – 30 bpa
Central	July 1–15	3.1 – 3.6 (SCS 9314RR™ – SCS 9363RR™)	15 – 35 bpa
Southern	July 1–15	3.6 – 4.1 (SCS 9363RR™ – SCS 9412RR™)	20 – 40 bpa

Source: CORN Newsletter June 2004 – 17, by Agronomic Crops Team, OSU Extension., http://corn.osu.edu/story.php?setissueID=41&storyID=192

By Matt Hutcheson, CCA,
Product Manager
Phone: 937-414-6784
matt@seedconsultants.com



Do You Have Problems with Soybean Cyst Nematode?

Typically, soybeans may begin to show symptoms of Soybean Cyst Nematode (SCN) damage by July 1. SCN is a parasitic roundworm that feeds on the soybean root system. The cyst stage of the nematode's life cycle is when the female nematode is filled with eggs. Cysts are visible throughout the summer on soybean roots and will appear as small, white, and lemon-shaped. After the female matures, these cysts are hard to see. When trying to identify SCN presence on soybean roots, it is important not to confuse cysts with Rhizobium nodules (where N fixation takes place).

How can you determine if SCN is causing damage and yield loss to your soybeans? Injury symptoms include yellowing and stunting of plants. These symptoms may appear in patches of a field. These patches may grow from year to year; especially in the direction a field is tilled. Symptoms may become worse when plants are under other stresses in addition to SCN injury and can be confused with other issues, such as nutrient deficiencies. Soil in fields where SCN damage is suspected should be sampled and sent to a lab for analysis. The population level of SCN will determine the specific practices required to manage the problem.

Depending on the population level and the amount of damage being done, growers will have a few management options to consider. Planting soybean varieties with resistance to SCN is critical in fields where the parasite is present. Rotation away from soybeans to a non-host crop (such as corn) can also lessen the amount of SCN injury. In high population fields growers should rotate to a non-host crop for multiple years. It is also important to effectively control weeds, some of which can be SCN hosts as well.

Table 3. Other Hosts of SCN

Crop Plants	Weed Plants
Alsike clover	Hemp sesbania
Bird's-foot trefoil	Common and mouseear chickweed
Green beans, dry beans	Common mullein
Common and hairy vetch	Henbit
Cowpea	Milk and wood vetch
Crimson clover	Pokeweed
Crown vetch	Common purslane
Lespedezas	Spotted geranium
Pea	Wild mustard
White and yellow lupine	Purple deadnettle
Sweet clover	Field pennycress
	Shepherd's-purse

The above chart is adapted from OSU Extension Fact Sheet AC-39-10 (http://ohioline.osu.edu/ac-fact/pdf/0039.pdf) lists other host plants of SCN.

2016 Corn Leaf Diseases

As the 2016 growing season continues, producers across the Eastern Corn Belt will begin put more thought towards their production plans and management decisions for the upcoming season. One challenge that has affected corn yields in our sales territory over the past few years is foliar disease, especially Northern Corn Leaf Blight. Anyone who attended one of our Winter Agronomy Meetings heard a discussion of what conditions promote diseases (Nothern Corn Leaf Blight and Gray Leaf Spot) and possible management options. You might ask, "What are the important management options that will protect yield from leaf diseases?" Although some of the important management practices have already been performed (crop rotation, hybrid selection, and tillage) growers still have opportunities to protect their corn from disease as discussed in the following list:

• **Scouting:** Scouting fields is an important part of a management plan. Walk corn fields right before tassel emergence to determine disease presence and severity.

• **Identify Which Diseases are Present:** Having the ability to identify specific diseases is a critical piece in managing GLS and NCLB. NCLB symptoms are brown or tan cigar-shaped lesions, ranging from one to six inches in length. GLS symptoms are tan or gray rectangles with parallel or straight sides, ranging from half and inch to four inches in length.

• **Effective use of fungicides:** Whether or not to apply fungicides has become a more challenging question with lower commodity prices. Many factors must be considered when determining if a fungicide application is necessary, including: hybrid resistance, disease severity, stage of crop development, expected yield benefit, etc.

While we don't know if the weather for the 2016 growing season will be conducive for development of yield-reducing disease, we do know that there is plenty of disease inoculum in crop residue from the 2015 growing season. Should the right patterns of weather develop, producers in the Eastern Corn Belt could be looking at another year where leaf diseases threaten corn yields. As always, if diseases become a problem Seed Consultants' knowledgeable sales staff and agronomy team are available to help customers determine where and when to apply fungicides.

Does Applying Fungicides to Corn Plants at V5-V6 Pay for Itself?

For the past several years, BASF has encouraged the use of a fungicide application at Tasseling to R1 stage of the corn plant for increased yields and plant health. Since then, Bayer and Syngenta have documented higher yields as well in their fungicide trials on corn. University work has shown not all corn fields are candidates for fungicide applications. Certain environmental conditions and disease tolerances of the corn plant's genetics are important factors prior to making a decision on a fungicide application at the above stage. With corn acreage increasing in 2016 growers are planting more continuous acres of corn to meet that need. Since 2012 industry and university trials of a fungicide application at V5 and up to V8 revealed healthier plants, less disease, more positives, in certain environments. Fungicide applications to disease resistant hybrids did not show any increase to justify the application.

Prior to planting continuous corn, growers should find out the disease resistance of the hybrids, be it Gray Leaf Spot, Northern Corn Leaf Blight or other diseases that can decrease yield and affect stalk quality. On page 22 of the Seed Consultants 2015-2016 Seed Guide, hybrid resistance is listed for the different diseases. Information, such as this, helps the customers to decide if the hybrid should be planted here or somewhere else. Disease issues can be greater in areas of reduced tillage with increased residues on the surface. Syngenta's past fungicide trials since 2010, at the V4 to V8 stage, applied early only, yielded six bushel per acre more. Ohio State University had some corn trials with fungicides.

The biggest yield benefit seen, from a fungicide application, was with susceptible hybrids, planted in a continuous corn situation, no-till or reduced tillage corn with favorable disease development. The more trash on the surface, the more benefit from an early fungicide application to susceptible hybrids. Bayer Crop Science also saw in their early fungicide trials, more disease in high population plantings with narrow rows. With this increased disease environment especially in corn after corn with a lot of residue, it is important to keep young plants healthy and minimize stress.

In a corn and soybean rotation growers normally won't see the need for an early fungicide application due to the environment where planted. In a situation of continuous corn with the disease potential or in fields with past disease issues, a fungicide application at V5 to V6 can be a positive management tool, minimizing stress and helping build yield.

SCI Yield Contests

Seed Consultants, Inc. yield contests are designed to support the development and use of management practices that help growers achieve higher yields. Seed Consultants will support, advise, and recognize all growers who work to attain higher yields through best management practices employed on their farms. Additionally, any grower who enters a Seed Consultants hybrid or variety in a state or national contest will be automatically entered in one of Seed Consultants yield contests.

AWARDS

Awards for the winners of each SCI yield contests are:

- 1st place: $1,000 in SC brand seed
- 2nd place: $750 in SC brand seed
- 3rd place: $500 in SC brand seed

CONTESTS

- Project 300 Corn Yield Contest
- Project 100 Soybean Yield Contest
- Project 150 Wheat Yield Contest

For more detailed contest information or to sign up, contact your area seedsman or call our office at 1-800-708-2676.

Troubleshooting Corn Emergence Issues

With many customers starting to plant corn in April 2016, and others trying to finish, one looks forward to rowing corn plants and making sure all our efforts to have good emergence exists in our fields today. Some fields have always had issues where the seed has had trouble coming up out of ground. As we walk our fields keep in mind some of these problems, be it insect or environmental, could be affecting corn emergence.

If no seed is present, it could be the result of planter malfunction or bird damage. If bird damage, one will see digging or plant pieces left on top of the ground.

If the shoot is unfurled and the plant is leafing out underground, it could be a result of early exposure to sunlight in cloddy soil conditions, deep planting, soil crusting, or chemical issues during periods of cool, wet conditions.

Seed having poorly developed root/shoot or shoot tips are brown or yellow in color could be signs of seed rot. With wet conditions there is the possibility of seed rot. If corn has not emerged yet one should dig up seedlings and look for disease symptoms especially in saturated soils or lower areas where water lays. Under wet, cool conditions in the soil, corn seedlings are vulnerable to seedling blights be it Pythium or Fusarium. Dark, discolored roots and crowns are typical characteristics of seedling disease issues. Examine seedlings thoroughly. This condition will continue to worsen should soils remain cold and wet.

Seed swelled but not sprouted could be a sign of poor seed-to-soil contact.

Herbicide injury can affect seed germination. Check out skips where seedlings are malformed or discolored. Determine the seed depth and herbicides applied with injury symptoms like twisted or club roots as well as purple plants.

Seeds hollowed out could be a sign of wireworm or seed corn maggot damage.

Most of the time uneven emergence is due to poor soil to seed contact from cloddy soils, crusting, shallow planting, or a variability of temperature and soil moisture within the furrow affecting emergence. Determine if a pattern exists of uneven emergence throughout the field. A particular row unit, spray nozzle, or residue accumulation could be a reason why this pattern exists. Usually with sufficient moisture and warm temperatures, corn will emerge within five to 8 days. When stands are not reduced, delayed emergence usually does not have a negative impact on yield later on. However when uneven plant development does occur with delayed emergence then the possibility exists of reduced corn yield.

With changing weather patterns, after planting, corn emergence in some fields has always been an issue. When this does occur we need to walk these fields and determine if emergence will be a factor and should replant be considered. The best yield possible will result with good growing conditions of the established corn stand. Walking fields will show how good or bad stands really are.

By Bill Mullen, CCA,
SCI Director of Agronomic Services
Phone:740-505-2022
bmullen@seedconsultants.com

SCI's 2016 Wheat Varieties

Wheat profitability in 2016 will depend upon many factors from planting to harvest. Selecting the best variety is the first step for a successful crop in your fields. When selecting the right variety one needs to include the variety's characteristics of maturity, winter hardiness, test weight, yield potential, and good agronomics with disease tolerance/resistance.

Throughout OH, IN, IL, KY, and MI, Seed Consultants conducts on-farm testing of the different wheat varieties as well as planting its own Replicated Research Wheat Plots. SCI participates in university's Wheat Performance Trials as well. We test existing varieties and new lines to help you make the right selection for your area.

SC 1315-15™ brand

- Medium-Early maturity, bearded variety, ideal for double crop
- 105% of plot mean, 104 bushel, 2014 SCI Wheat Test …8 locations average
- 102% of plot mean, 84.5 bushel, 2015 SCI Wheat Test…7 locations average
- 2016 Posey County, IN, Wheat Test, 131.3 bushel, 108% of plot mean, 3rd of 45 entries
- 2015 OSU Wheat Test Summary, 87.1 bushel, 102% of plot mean, 29 of 78 entries
- Planting rates of 1.6 to 1.8 million seeds per acre 2 to 3 weeks after fly free date
- Medium height, with excellent standability and very good test weight
- Spring topdress N of 85 to 100 pound actual N under high management
- Widely adapted variety throughout the SCI sales area
- Nice companion variety with SC 1325-15™ in early, high yield environments
- Very good disease package including Head Scab and Leaf Blotch tolerance
- Patent Pending

SC 1325-15™ brand

- High yield potential, bearded variety, adapting throughout OH, IN, KY and MI
- Ideal choice for planting double crop soybeans after wheat
- Medium maturity line; works well in Intensive Wheat Management programs
- Very good plant health, test weight, and winter hardiness
- Excellent standability with very good tolerance to Glume Blotch and Head Scab
- 101% of plot mean, 100 bushel, 2014 SCI Wheat Test…. 8 locations average
- 100% of plot mean, 82.7 bushel in 2015 SCI Wheat Test… 7 locations average
- Posey County, IN, Wheat Test, 124.3 bushel, 102% of plot mean, 15th of 45
- Topped 2014 OSU Wheat Test, 113.4 bushel, 110% of plot mean, 1st of 87
- 2015 OSU Wheat Test Summary, 87.5 bushel, 102% of plot mean, 25th of 78
- 2015 UKY Wheat Test Summary, 82.7 bushel
- Adapts to a high wheat management environment—90 to 100# N spring topdress
- Where Powdery Mildew is an issue, a fungicide is recommended for control
- Patent Pending

SC 13S26™ brand

NEW

- Fhb1—Type II Scab Resistance—New Agronomic Characteristic of Wheat
- Medium Late maturity, bearded variety with medium height
- Very good tillering with strong early growth
- Excellent standability, very good test weight, and winter hardiness
- Very good tolerance to Head Scab, Leaf and Glume Blotch
- Promote fungicide program to maximize yields as well as controlling Powdery Mildew and Stripe Rust if present
- 2015 Research plot results, 1st in Lower and Upper Midwest… 7 locations average
- 103% of plot mean in 2015 SCI Wheat Test Summary, 85.1 bushel, 16th of 70
- Spring topdress of 90 to 105 pounds N helps this variety to excel in yield
- Fall seeding rate of 1.6 to 1.8 million seeds per acre
- Patent Pending

SC 1342™ brand

- Full season variety choice for SCI wheat producers
- Medium Late maturity allowing for longer grain fill time
- Superior yield potential and very good test weight
- Medium tall variety, smooth head (no awns) with excellent standability
- Very good disease tolerances Stripe Rust, and Barley Yellow Dwarf Virus (BYDV)
- Use of foliar fungicide may be needed in areas for disease control of Powdery Mildew, Septoria Leaf Blotch, and Head Scab.
- 103% of plot mean, 102.6 bushel, 2014 SCI Wheat Test Summary, 13th of 60
- 108% of plot mean, 89 bushel, 2015 SCI Wheat Test Summary, 2nd of 70
- 2015 UKY Wheat Test Summary, 91.2 bushel, 107% of plot mean, 5th of 109
- 2015 OSU Wheat Test Summary, 85.7 bushel, 101% of plot mean
- 2015 UKY Wheat Forage Test, 3.87 tons, 101% of plot mean, 7th out of 109
- Excellent variety for those growers needing straw tons
- Patent Pending

Product performance is variable and depends on many factors such as moisture and heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. Individual results may vary.

SCI'S 2017 CUSTOMER TRIP

SAVE THE DATE!

PUNTA CANA
DOMINICAN REPUBLIC

January 21-27, 2017

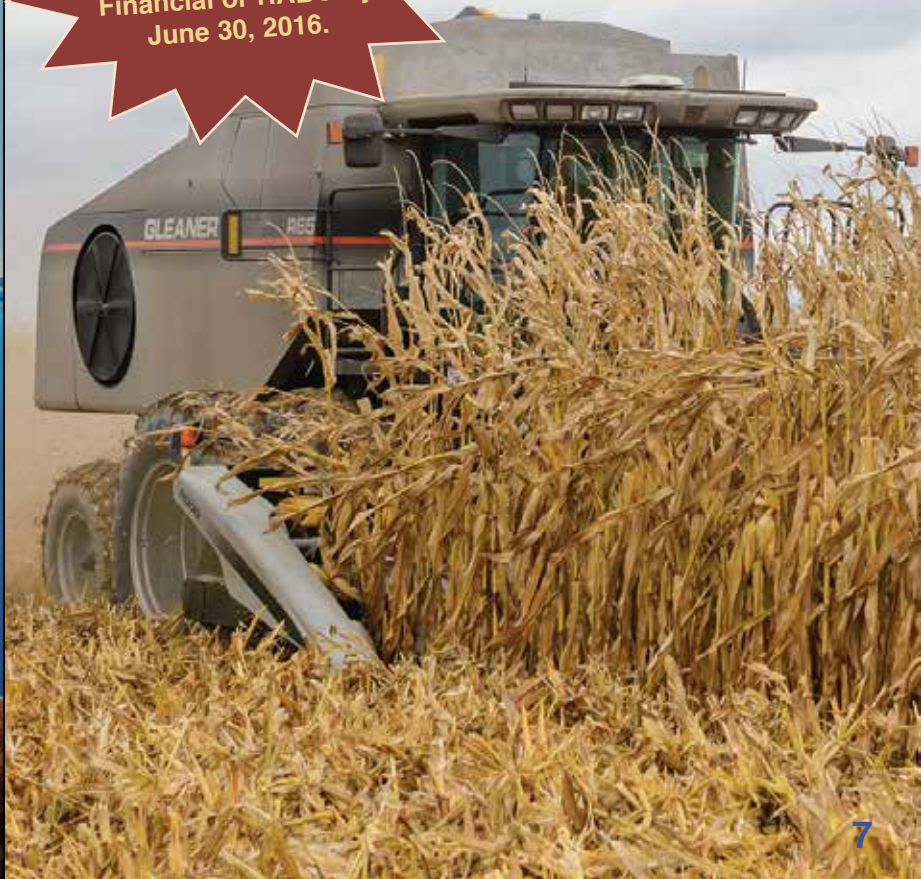
Stay tuned for more information and important deadlines in late-July.

Financing Programs

John Deere Financial Preferred Customer and/or RABO financing programs only available to approved customers. To apply for a John Deere Financial Preferred Account or RABO account or to increase your John Deere Financial or RABO line of credit, contact your SCI representative, so the necessary paperwork can be completed with John Deere Financial &/or RABO.

Finance Plan	A	B
Purchase & Approval Date	John Deere Financial	RABO
	Fixed 0%	Fixed 0%
In Season	0.0%	0.0%

Call and have your spring balance applied to John Deere Financial or RABO by June 30, 2016.



Seed Consultants Inc.
P.O. Box 370
648 Miami Trace Rd. S.W.
Washington Court House, OH 43160
USA

Between the Rows

Updates from Daniel Call, general manager

Mid-Summer Opportunities

The profitability of a wheat program in our customer's operations historically has been difficult to accurately budget. The two biggest variables have been; 1. Will I experience quality, yield and test weight issues because of Fusarium head scab? 2. Will I be able to get good control of late season resistant marestail, pigweed and giant ragweed in my double crop soybeans?

If these two variables have been problematic on your farm, SCI now has the opportunity to help. We are excited about a couple newer technologies we can provide to help you deal with these tough to prepare for, and tough to control issues.

New for the fall of 2016, SCI will be launching our first Fusarium Head Blight (Scab) Resistance Gene wheat variety using the Fhb1 gene. This type of gene resistance slows down or inhibits the spread of the pathogen from the initial infection site. In essence, a single grain may get infected on the head, but the disease will not spread throughout the entire head. The result is reduced DON levels, increased test weight, improved quality, and increased yield potential. Look for this exciting new technology this fall in our new release SC 13S26™ brand. This will be the first of several Scab Resistant varieties in the near future.

As we look at weed control issues in double crop soybeans, the LibertyLink® soybean technology has proven to give our customer's EXCEPTIONAL control of hard to kill broadleaf weeds. This year we will be offering a double crop program, offering soybeans with the LibertyLink® gene to further incentivize our customers to try a double crop alternative. Please contact your seedsman/woman for more details and variety recommendations. If you have not already tried this technology, take a look at it for the first time this year as a double crop option.

Seed Consultants strives to offer our customer's industry leading technologies such as these in order to help improve their productivity and profitability. Continuing our commitment to being, "Simply, the Best Value in the Seed Industry™".

Successfully,
Daniel Call
General Manager

DON'T MISS OUR WEEKLY EMAIL NEWSLETTER!
The SCI free e-newsletter comes via e-mail every Monday. The newsletter is packed full of current agronomic topics. Subscribe by sending your e-mail address to matt@seedconsultants.com or by signing up on our website at www.seedconsultants.com.