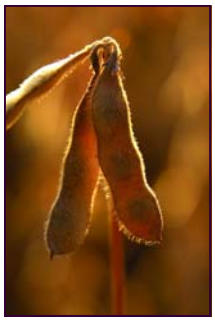
GEORGIA SOYBEAN COMMODITY COMMISSION

Farmers Putting Soybean Checkoff Dollars to Work for You



Georgia Soybean News

FALL 2016

Practices To Prevent Herbicide Resistance

Resistance is the ability of weed species to survive treatment that would otherwise effectively suppress them. In other words, herbicide resistance is a phenomenon when the active ingredient of the herbicide no longer has the desired effect on a certain weed species. The term resistance is often equated with the concept of tolerance, but there is a difference.

Weed resistance can occur naturally or it can be induced by certain techniques such as genetic engineering and tissue culture selection, whereas weed tolerance only occurs naturally. It is interesting that resistant biotypes can not only survive recommended amounts of herbicides but also extremely high amounts.

Multi-year application of herbicides with the same mode of action on the same field may lead to resistance of certain weed species and complicate their future control. Successful management of herbicide resistance includes certain measures that farmers should implement (physical, biological and chemical) including:

- biological measures: cultivation, crop rotation, field sanitation, growing of competitive crops, preventing the introduction and spread of resistant weeds and their seeds

- physical measures: cleaning of farm machines from the remaining seeds; preventing of seed spread by silage, manure or seeds; prompt soil tillage to place resistant seeds into the soil and prevent their spread by wildlife, wind, and water; tillage after resistant weeds emerge to prevent their spread

- chemical measures: use of herbicides with different modes of action on weeds, a limited number of applications during the season, and the use of non-selective (total) herbicides in the pre-emergence crop stage

- crop rotation can significantly reduce the competence of resistant weeds; every crop grows and matures at different seasons thus breaking the cycle of resistant weeds

This article excerpted from "Long-standing Fight of Farmers and Weeds Resistant to Herbicides" courtesy of www.agrivi.com.

INSIDE THIS ISSUE

Four Weed Management Tips for Harvest Time

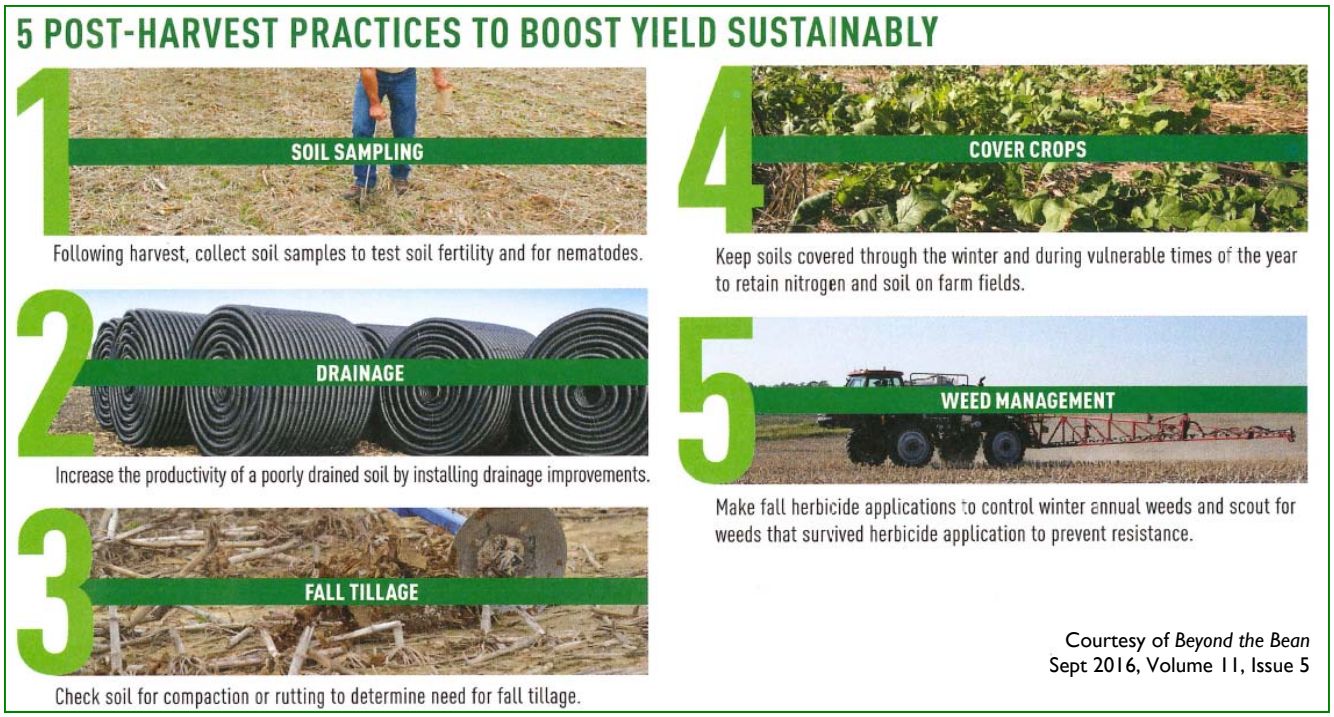
Harvest is a good time for U.S. soybean farmers to celebrate a bountiful gathering of their hard work and yearlong efforts. It can also be a time to reflect on lessons learned from environmental, disease and weed pressures from the past growing season, how much yield those stresses cost and how to manage them next year.

Specifically for weeds, you can be a steward of the land and get a jump on next year's weed management during this year's harvest. While harvesting your crop, it is very easy for the combine to spread weed seeds throughout your field as well as into neighboring fields.

Below, University of Tennessee Row Crop Weed Specialist Larry Steckel, Ph.D., offers four adjustments you can make to your management practices during harvest that could make your spring and summer weed management easier.

1. **Manage weeds before they take over your field.** Proactive management will improve your yields and reduce the chances of having herbicide-resistant weeds develop in your fields.
2. **Leave large patches of weeds in the field.** This will diminish the amount of weed seed spread throughout the rest of that field.
3. **Clean the combine after harvesting weedy fields.** Clean machinery transfers fewer weed seeds to other fields.
4. **Harvest the fields with the most weeds last.** Leaving the worst for last will decrease the spread of weed seed even more.

Source: United Soybean Board; for more information, visit www.unitedsoybean.org.



Courtesy of *Beyond the Bean*
Sept 2016, Volume 11, Issue 5

More Meat, More Meal

5 Questions for Erin Borror, economist, U.S. Meat and Export Federation (USMEF)

Q: Meat and poultry demand show strong growth ahead. Can you tell me what you expect over the next 10 years?

A: U.S. export growth is expected as a function of strong global demand. Beef is projected to grow by roughly 30 percent and pork by roughly 40 percent over the next 10 years.

Q: What factors are causing that potential growth?

A: One of the biggest drivers will be growth in the upper middle class. Mexico is a good example of both population and income growth. It is a critical market for U.S. pork and was the strongest buyer last year. But Mexico's pork industry is also growing, so they are importing more U.S. feed grains. U.S. farmers have benefited both ways.

Q: How will growth in meat and poultry demand affect soybean meal demand over the next 5-10 years?

A: Growth in meat exports supports the profitability of livestock producers. The more livestock we raise, the more soybean meal we use. We see global demand as key for profitability across livestock and grain sectors. It comes down to increased demand from livestock producers, which supports soybean farmers' profitability.

Q: What is USMEF doing to increase meat demand?

A: Although it varies by country, we basically focus on marketing U.S. red meat health and quality attributes. We educate international buyers and consumers about U.S. livestock and meat production practices to overcome common misperceptions and to highlight the food safety practices used in the United States. We work with trade, foodservice and retail and increasingly use social media to communicate with consumers to increase total consumption by growing imports.

Q: Is USMEF targeting any new countries?

A: We've recently started positioning U.S. meat in Africa since it is one of the expected growth markets of the future. And after the Russian market closed, we have focused on the surrounding region, including countries such as Georgia, Kazakhstan and Ukraine. Some other relatively smaller markets where we are active and that have been growing recently are Central and South America and the Dominican Republic. Per capita consumption is relatively low in many of these countries, so we are working to build demand as incomes grow and consumers have the ability to eat more high quality meat protein.

Source: United Soybean Board; for more information, visit www.unitedsoybean.org.

Georgia Soybean Production & Efficiency Contest

The Georgia Soybean Production and Production Efficiency Contests are designed to emphasize production practices which are associated with efficient and profitable soybean production, to recognize those producers who produce high yields or produce yield efficiently, and to accumulate data on the practices utilized by those outstanding producers. Any grower who produces soybeans in Georgia is eligible to enter the contest.

Recognition of efficiency and production winners will be made at the GA/FL Soybean/Small Grain Expo in February 2017. Awards will be presented to the three highest state yields for irrigated and non-irrigated soybean. A category for ultra-late production (planted on or after July 25th in a field where corn was harvested in 2016) will be included this year, with three awards presented for three highest state yields.

For more information on the 2016 Georgia Soybean Production & Efficiency Contest, contact your local county Extension agent for rules and entry forms. Entries should be mailed to *Dr. Jared Whitaker, 2360 Rainwater Rd., Tifton, GA 31793.* Entries should be received by December 31st.

HEALTHY SOIL, HEALTHY YIELD

Courtesy of *Beyond the Bean*
Sept 2016, Volume 11, Issue 5

By Ginger Merritt

You have the right seed, but is your soil ready for it? After harvest is an ideal time to test your soils to prepare your ground for high yields next year – and hopefully avoid nutrient deficiencies.

NUTRIENT	DEFICIENCY SIGNS	CAUSES	TREATMENT
Nitrogen (N) has more influence on growth and yield than any other nutrient and is a necessary component for photosynthesis and protein production.	- Reduced growth and development - Leaves turn yellow, typically seen in older leaves first	Low soil pH (less than 5.5)	- Monitor nutrient levels through regular soil testing - Correct soil pH (Optimum: 6-6.5)
Phosphorus (P) plays a major role in energy storage and transfer, which drives most physiological processes. Is also needed in a much smaller amount than nitrogen.	- Leaves turn dark green to reddish, typically seen in older leaves first - Stunting, thin stems	- Low soil pH (less than 5.5) - Low levels of P in the soil	- Monitor nutrient levels through regular soil testing - P fertilizers and/or manure/ biosolids can be added to the soil - Correct pH (Optimum: 6-6.5)
Potassium (K) is needed in greater amounts than any other nutrient besides nitrogen. It is key for growth and improves water and nutrient uptake. Potassium also helps reduce disease in plants.	- Slow growth, weak stems - Poorly developed root systems - Yellowing/burning on the edges of leaves (appears first on the older leaves)	- Low soil pH (less than 6) - Low levels of K in the soil	- Monitor nutrient levels through regular soil testing - Apply K fertilizers immediately after discovering a deficiency - Correct pH (Optimum: 6-7)

High Oleic Leaps from Field to Fryer


Collaboration is instrumental to change. When the U.S. soybean industry rolled out high oleic soybean varieties more than five years ago, it knew it would take an industrywide effort to bring solutions to the market.

"The success of high oleic soy depends on the collaboration of many partners – from end users all the way back to the seed companies and the farmers," says John Motter, soybean farmer from Jenera, Ohio who grows high oleic soybeans and also serves as United Soybean Board Vice-Chair. "For us to see growth – in acres and demand – it will take a continuation of these efforts to bring profitability to soybean farmers."

Enter the town of Findlay, Ohio. Motter and other farmers around Findlay were some of the first to grow high oleic soybeans in 2011. Today, the town of 40,000 was the site of a high oleic takeover of sorts. Farmers gathered to learn from their peers about growing high oleic soybean varieties and passers-by were able to sample goodies cooked in high oleic soybean oil.

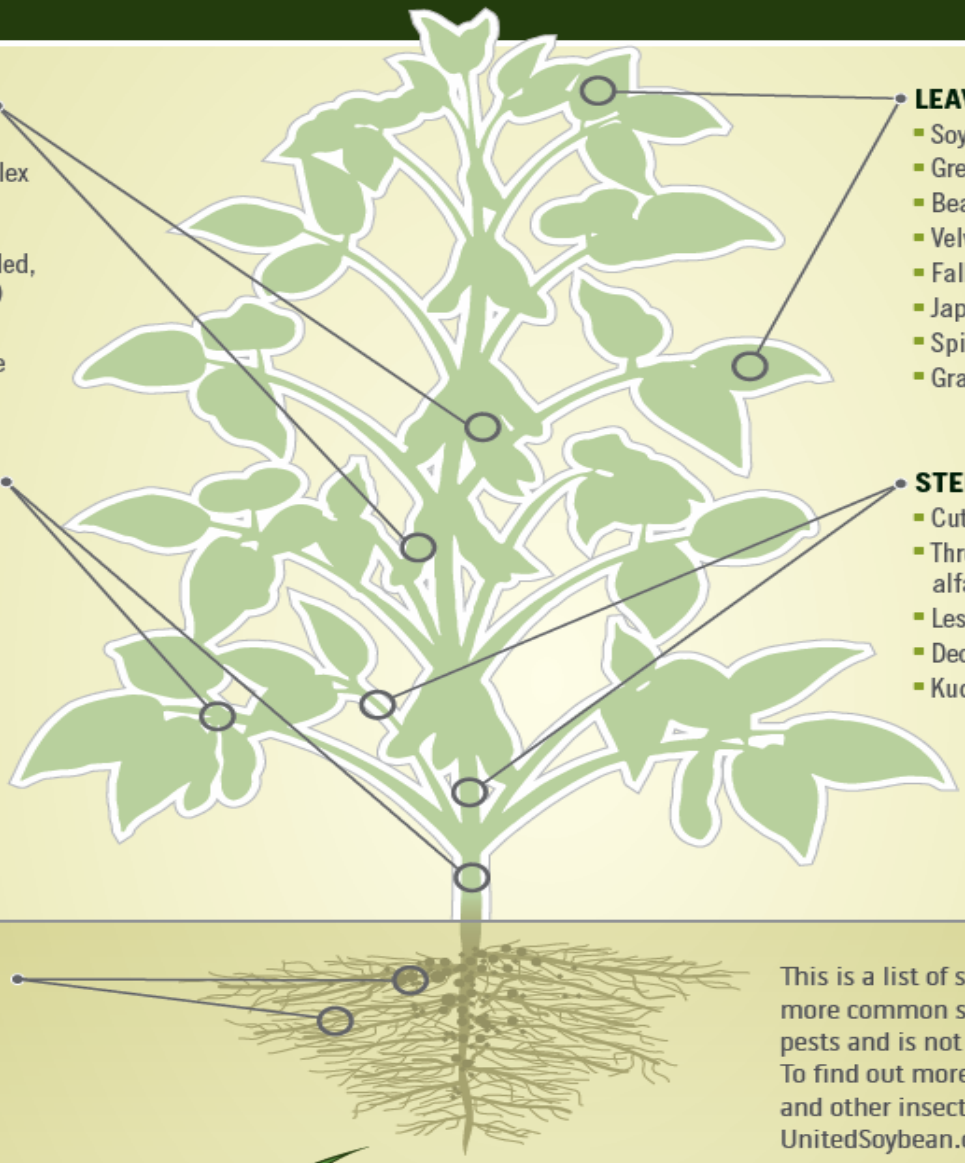
For farmers, these varieties perform right along with other varieties in their fields and pack a premium to add to farmer profitability. For food companies, high oleic soybean oil offers a familiar taste with lower saturated fats and without unnecessary trans fats.

"I'm proud to bring a domestic oil back to the food industry," adds Motter. "So much of our soybean oil demand has been lost to imported oils and that affects my bottom line."

High oleic soybeans are expected to top one million acres in 2017 – a milestone for the crop. But, the soy industry estimates the demand for high oleic will top 18 million acres by 2023. Farmers are encouraged to seek out local contracts and join their peers in growing high oleic soybeans. To find out more information, visit www.soyinnovation.com or talk to your local seed representative.

Source: United Soybean Board; for more information, visit www.unitedsoybean.org.

COMMON SOYBEAN PESTS
AND HOW THEY ATTACK YOUR FIELDS



SEEDS/PODS:
- Corn earworm
- Stink bug complex (Brown, Brown marmorated, Green, Redbanded, Southern green)
- Grasshopper
- Bean leaf beetle

LEAVES:
- Soybean looper
- Green cloverworm
- Bean leaf beetle
- Velvetbean caterpillar
- Fall armyworm
- Japanese beetle
- Spider mites
- Grasshopper

SAP/PHLOEM:
- Soybean aphid
- Kudzu bug

STEM/PETIOLES:
- Cutworms
- Three cornered alfalfa hopper
- Lesser corn stalk borer
- Dectes stem borer
- Kudzu bug

ROOT/NODULE:
- Wireworm
- Bean nodule fly
- Grubs

This is a list of some of the more common soybean insect pests and is not comprehensive. To find out more about these and other insect pests, visit UnitedSoybean.org.

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