

# 2020 Soybean Variety News

# **Full-Season Soybeans Gain Acres**

According to 2019 USDA reports, Virginia now plants about 345,000 acres of full-season soybeans and, if all wheat and barley acres are followed by soybeans, about 215,000 acres of double-cropped soybeans.

	USDA 2019 acres (000's)			
state	wheat/bar	FS soya	Total	
DE	87	66	153	
MD	524	49	573	
NC	237	1,293	1,530	
VA	215	345	560	
	1,063	1,753	2,816	

Some of the acres listed as wheat or barley may be cover crop reporting as cereals but, regardless, fullseason beans have become the predominant soybean crop in the Mid-Atlantic.

For growers who have experience with double-crop soybeans, full-season production requires a different mindset. For full-season soybeans, regardless of location, the optimum planting date is April 10-25. This allows for as much plant development before the Summer Solstice ( $\sim$  6/21) as possible.

The chart below shows the optimum planting date for maturity groups *in a perfect environment*. Please note: we seldom have a perfect environment.

The goal is to either outrun the July/ August heat (MG3 and MG4 blooming before 6/21) or outlast it (MG5 blooming after 8/21). The MG3 and MG4 varieties have higher yield potential but cannot take as much stress. The MG5 and MG6 varieties can take more stress but produce lower yields in an optimum environment. The longer the MG, the more stress it can take.

Once we get into June, the best choice is to move back to a late MG4 then to an early MG4 or even a late MG3 as we move into late June and into July.

It's important to recognize that our late summer hurricane rain is what makes it even possible to produce double-cropped soybeans in the Mid-Atlantic without irrigation. These rains happen more often than not.

It is the July heat and dryness that hurts full-season production. In most years, for regions east of I-95, the safest bet is to plant soybeans in April thru May 5, then stop until about June 6 before planting again.



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Planting early will require a strong seed treatment to protect against soil pathogens. **RenPro™** soybean seed treatments contain fungicides to protect against both cold and warm soil pathogens (please see back page). A seed insecticide becomes a requirement for early-season soybeans to avoid thrips and bean leaf beetle damage. Both stunt the plant which reduces shading and node numbers.

Full-season soybeans have responded to either seed treatment inoculants or to in-furrow applications of inoculants. Growers can add *RizNate*<sup>™</sup> <u>inoculant</u> to their seed treatment from Renwood Farms or buy it to add as an in-furrow treatment.

**Weed control** is the main driver of variety selection in soybeans. Regardless of weed traits, a residual herbicide is still recommended. However, VA Tech released a chart showing that certain residual herbicides can cause crop injury with some degree of frequency. On coarse/ sandy soils, VT gave an "Excellent" or "Very Good" (rare crop injury) to soil applied herbicides Dual, First Rate, Spartan, Zidua and Outlook. Of the premixes, only Authority First, Anthem Max and Prefix were noted as "Very Good" for being soil applied. Avoid choosing residual herbicides that cause crop injury especially when planting into cool soils.

**Molybdenum** remains the single most limiting nutrient in Mid-Atlantic soybean production. Renwood Farms now sells two molybdenum products: 10% Moly for soil or herbicides applications and Molyron<sup>™</sup> for foliar applications with fungicides/ insecticides. Multiple molybdenum applications have increased soybean yields between five and 12 bu./acre in ag.systems' plots.

In most of the South, full-season soybeans are defoliated prior to harvest. Allowing the soybeans to dry down and ripen in late summer heat and moisture is a recipe for damage from Phomopsis and purple-stain, as we experienced in 2018. Fullseason soybeans were spared the same fate in 2019 because the rains stopped in mid-August.

Unfortunately, most elevators are not willing to take full-season soybeans as they prepare to receive corn. If you have storage, Gramoxone and crop oil have been very effective at defoliating soybeans to allow for early harvest. The longer the ripe beans stay in the field, the worst the damage will be if rains and heat persist. Results below show yields from VA and NC OVT 2019 trials for USG soybean varieties for both fullseason and double-cropped. Full-season beans had a better yield overall due to rains in July and August. A prolonged dry spell along with heat in September reduced dc soybean yields.

2019 VT-OVT yield summaries of full-season early maturity group IV entries.

Brand	Variety	ORG	WAR	AVG
USG	7447XTS	85.2	51.2	68.2
USG	7450ETS	73.8	58.8	66.3
USG	7460ET	73.8	58.0	65.9
USG	7410ET	85.3	46.0	65.7
USG	7440ETS	76.1	51.9	64.0

2019 VT-OVT yield summaries of full-season late maturity group IV entries.

Brand	Variety	ORG	WAR	AVG
USG	7480XT	76.5	78.5	77.5
USG	7496XTS	66.1	74.0	70.1
USG	7499ET	64.2	75.6	69.9
USG	Ellis	63.6	74.5	69.1
USG	7487XTS	65.6	72.4	69.0

2019 VT-OVT yield summaries of double-crop late maturity group IV entries.

Brand	Variety	Warsaw, VA
USG	7478XTS	56.3
USG	7479ET	54.6
USG	7487XTS	52.2
USG	7480XT	49.8
USG	Ellis	49.6
USG	7496XTS	48.6

NCSU OVT Soybean 2 year MG5 Full Season - 2019

Brand	Variety	State Yield (bu./A)	
USG	USG 7529XTS	66.6	
USG	USG 7568XT	61.5	

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### Renwood Farms Featured USG Xtend Varieties for 2020

Variety	Traits	RM	Notes
7447XTS	XT, STS, SCN 3 &14	4.4	Top yield in 2019 <b>VT and MD OVT</b> . For April and early May planting or late June. Strong emergence in cooler soils, excellent charcoal rot resistance for lighter soils and very good against SDS. Light tawny pods means better resistance to purple stain
7480XTS	XT, STS, SCN 3 & 14	4.8	<b>NEW!</b> Top-yield in 2019 VT-OVT for full-season (fs). Excellent resistance to stem canker. Excellent shatter resistance with strong emergence and stands well; this is a tawny, semi-bushy variety
7496XTS	XT, STS, <b>RKN</b> SCN 3 & 14	4.9	The only MG4 Xtend variety with moderate resistance to <i>Root Knot</i> <i>Nematode</i> ! A light tawny pod with resistance to stem canker and SDS with a semi-bushy structure makes this perfect for early or dou- ble-cropped (dc) fields; with STS trait for herbicide flexibility
7529XTS	XT, STS	5.2	Top MG5 in NC-OVT. This is a hard charging, high yield bushy soy- bean with stem canker resistance for planting after soils warm in May; with the STS trait
7540XT	XT, <b>RKN</b> SCN 3 & 14	5.4	A MG 5.4 soybean variety with resistance to frogeye, SDS and stem canker. A gray bean with outstanding standability makes this the per-fect May-planted variety
7390ET	Enlist 3	3.9	<b>NEW!</b> Very high yielding tawny variety with resistance to both stem canker and brown stem rot. Above average frogeye resistance. Top yield in MD OVT for dc soybeans at Quantico
7440ETS	Enlist 3/ STS/ SCN	4.4	<b>NEW!</b> Averaged 66 bu./acre in 2019 VT-OVT full-season trials. Resistant to stem canker and frogeye with PI88 gene for SCN 3 and 14
7460ET	Enlist 3 /N	4.6	<b>NEW!</b> Top yields in MD OVT for fs and dc at Wye and for dc at Quan- tico. SCN resistance with excellent stem canker and frogeye re- sistance
7480ET	Enlist 3	4.8	<b>NEW!</b> Averaged 49 bu./acre in 2019 VT-OVT dc trials. Performs on lighter soils. With superior stem canker and above average frogeye resistance
74D95RS	RR2, STS, RKN	4.9	A high-yielding MG 4.9 soybean with resistance to <i>Root-Knot Nema- tode</i> . Excellent resistance to stem canker with above-average re- sistance to Frogeye Leaf Spot. Produced 84.7 bu. /acre in irrigated Renwood Farms 2014 Variety Trial
Ellis	CON / RKN	4.9	High yields with solid disease and Root-Knot Nematode resistance
5618V	CON	5.6	A tawny soybean from VA Tech. It is a high-yielding soybean with excellent brown spot, stem canker and frogeye resistance. It has good emergence and stands well with a medium-height and semi- bushy structure



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<u>For questions or orders, please contact</u>: Jeff Hula (production and shipping) Office: 804-829-2450 Cell: 804-385-6843 Iain Brinks (customer service): 804-363-3946 Paul Bodenstine (agronomist): 804-314-7463

Call us with questions! Ask about prices and discounts for the best seed and seed treatments for your farm.

## *RenPro*<sup>™</sup> Soybean Seed Treatments from Renwood Farms

Renwood Farms uses the <u>**RenPro</u>™** family of soybean seed treatments. These seed treatments provide soybean growers with:</u>

- Cleaner seeds as they remove fungal pathogens carried <u>on</u> the seed from last season
- Protection from soil fungal pathogens in cool, wet, dry or warm soil conditions
- Molybdenum to regulate nitrogen uptake and utilization and enhance disease resistance

Optional - you can add these products

- Protection from above and below ground insects
- Biological microbes to stimulate plant growth and protect roots from soil pathogens (RizNate™)
- Nematode protection

The top chart at right is the best we know to illustrate the value of <u>**RenPro**<sup>TM</sup></u> soybean seed treatment. Growers plant over a variety of soil moisture and temperature conditions. While most seed treatments focus on cold and wet conditions, <u>**RenPro**<sup>TM</sup></u> is made to handle wide temperature and soil moisture swings. The fungal pathogens that damage soybean plants are different in cold soils compared to warm soils. <u>**RenPro**<sup>TM</sup></u> is the only soybean seed treatment to protect against both.

*RizNate*® is an encapsulated biological <u>seed inoculant</u> providing bacteria that produce nitrogen-fixing nodules on soybean roots and also contains a <u>balance</u> of several other microbes.

These microbes in *RizNate*® compliment seed fungicides to help <u>protect</u> from pathogens. These microbes also stimulate and enhance plant growth.

Bio-ST® is Renwood Farms seed treatment for soybean cyst and root-knot nematode protection and can be added to any seed treatment ordered.





USG soybean varieties treated with *RenPro*<sup>™</sup> seed treatments have produced more than other soybean systems in on-farm tests. Call us so we can demonstrate the value of the Renwood Farms Soybean Production System in your farming operation.