Sorghum Stop
Virginia Ag Expo

Virginia Tech
Virginia Agricultural Experimental Station
Virginia Cooperative Extension

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Topics

Sorghum varieties and yields in Virginia
Mid-season sorghum insect pests
Weed control
Diseases

Full-Season Sorghum OVT yields at all locations in 2015 with two year averages

Company or Brand Name	Hybrid	Suffolk	Windsor	Warsaw	2015 All Locations	2014 All Locations
DEKALB	DKS53-53	99	91	168	119	
Sorghum Partners	NK6638	144	78	136	119	109
Southern Harvest	SH59G4	113	84	158	118	
Alta Seeds	AG3101	105	88	163	118	
DEKALB	DKS54-00	120	102	130	117	
Southern States	SS655	121	93	130	114	102
Sorghum Partners	SP7868	128	77	134	113	
DEKALB	DKS51-01	107	82	149	113	110
Alta Seeds	AG2103	109	1	141	111	
Pioneer	86P90	93	96	141	110	
Sorghum Partners	SPX17414	136	72	119	109	
Alta Seeds	AG3201	108	78	140	108	
DEKALB	DKS44-20	96	83	140	106	105
Southern States	SS800	96	84	134	105	
Southern Harvest	SH94153	103	82	127	104	
Pioneer	83P17	120	71	121	104	104
Alta Seeds	AG2105	115	70	125	104	
Sorghum Partners	SP7715	123	71	115	103	
Alta Seeds	AG2115	112	62	130	101	
Pioneer	84P80	69	82	144	98	128
Southern Harvest	SH80G4	100	67	127	98	

Double-Crop Sorghum OVT yields at all locations in 2015 with two year averages

Company or Brand Name	Hybrid	Suffolk	Windsor	Locust Grove	2015 All Locations	2014 All Locations
DEKALB	DKS51-01	101	82	96	93	67
Pioneer	83P17	96	83	98	92	
DEKALB	DKS54-00	104	82	90	92	
Alta Seeds	AG1203	93	87	93	91	
Pioneer	84P80	94	76	99	90	
DEKALB	DKS53-53	92	79	94	88	67
Southern Harvest	SH94153	100	75	87	87	
Alta Seeds	AG2115	89	76	94	86	
Alta Seeds	AG2103	97	61	95	85	75
DEKALB	DKS44-20	88	84	81	84	
Advanta US	XG02008	89	54	109	84	
Alta Seeds	AG3201	94	65	93	83	74
Southern States	SS540	83	69	93	82	69
Southern Harvest	SH59G4	87	71	86	81	68
Alta Seeds	AG3101	97	65	75	79	74
Advanta US	XG30003	75	57	102	78	
Advanta US	XG30002	75	55	98	76	
Alta Seeds	AG2105	92	57	79	76	
Southern Harvest	SH80G4	95	57	73	75	66
Pioneer	86P90	1	55	97	73	70
Alta Seeds	AG1401	1	58	84	73	
Advanta US	XG30001	1	60	91	73	

Mid-season sorghum insect pests

Headworms (corn earworm and fall armyworm)

In pre-headed sorghum, worm control is rarely justified, even with ragged shotholes and 40-60% leaf injury. Heads should be sampled soon after flowering until the soft dough stage by scouting a minimum of 200 plants (sample multiple areas). Shake heads into a 5-gallon bucket and count the headworms. Treat only when larvae damage the head or the developing growing point and worms average 2 or more per head. Open-headed hybrids are damaged less than the compact or closed-headed type. Multiple pyrethroid insecticides are labeled for corn earworm control, but methomyl (Lannate) is the best option for fall armyworm.

Sorghum leaves with ragged shothole worm injury; headworms (corn earworm) in sorghum.

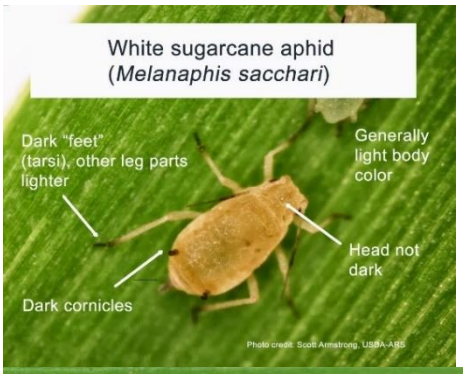
Corn earworm and fall armyworm larvae (both photos courtesy of Martin Spellman).

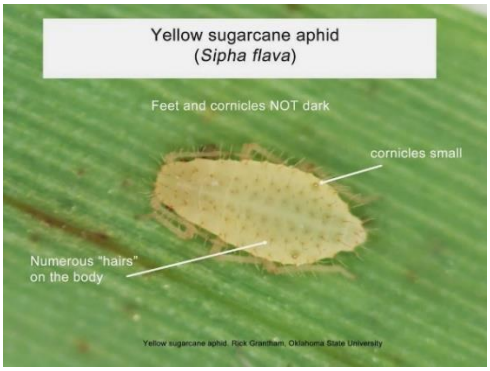
Aphids

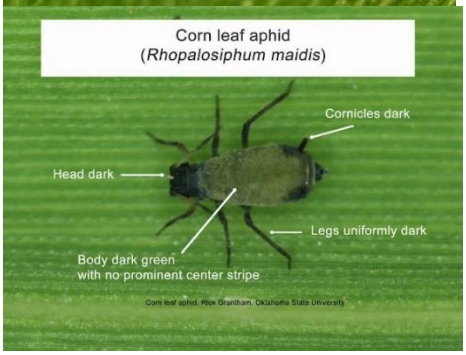
A mixture of aphids may be found in Virginia sorghum fields, including white sugarcane aphid (*Melanaphis sacchari*), a species that has recently made a host switch from sugarcane to sorghum. It was first discovered in Virginia in September 2015. Infestations of white sugarcane aphid can stunt or even kill sorghum plants that are in the pre-head stage, and after heading the honeydew can interfere with mechanical harvest by plugging up combines.

Another aphid pest of sorghum is the yellow sugarcane aphid (*Sipha flava*). According to Michael Brewer (Texas A&M University), yellow sugarcane aphid can be a problem on seedling sorghum. Dr. Brewer mentions that he gets concerned when there are 5 yellow sugarcane aphids per leaf on one-leaf sorghum, but if the sorghum is older or growing fast, typically just the base leaf is damaged and everything else is O.K. Lorsban seems to work well for yellows, less so for white sugarcane aphid. Corn leaf aphids (*Rhopalosiphum maidis*) are rarely worth concern–they are just good food for beneficial natural enemies!

Since white sugarcane aphid was found this season in late July, it is important to scout sorghum at least weekly for this pest. Start with field edges, especially checking the underside of lower leaves. Leaves that are shiny with honeydew are a clue that aphids are present on that plant. A general threshold is 25% of plants infested with white sugarcane aphid colonies. When white sugarcane and other aphid species are in the mix, control decisions should be based on white sugarcane aphid numbers and product recommendations (i.e., Sivanto and Transform). Good coverage is essential, and repeat applications (if needed) should rotate chemistries. Pyrethroids are not effective against white sugarcane aphid and are harmful to natural enemy populations, thus should be avoided for that aphid.







Sorghum weed control

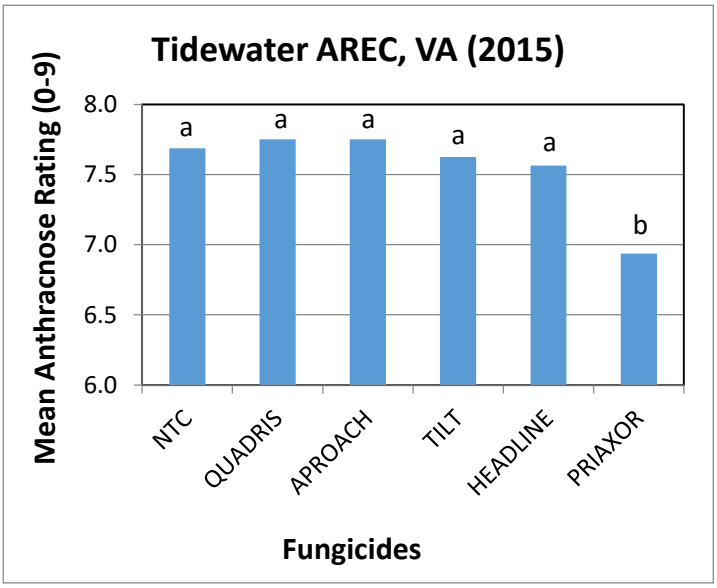
Herbicide Options for Grain Sorghum. ***			
Preplant Burndown	**Preemergence**	**Postemergence**	**Post-Directed**
Glyphosate	Atrazine	Atrazine	Linuron
Paraquat	Alachlor	Bentazon	
Saflufenacil	Dimethenamid	Bromoxynil	
Thifensulfuron + Tribenuron	Metolachlor	Bromoxynil + Pyrasulfotole	
	S-metolachlor	Carfentrazone	
	Alachlor + Atrazine	Dicamba	
	Dimethenamid + Atrazine	Dicamba + Atrazine	
	S-metolachlor + Atrazine	Prosulfuron	
		2,4-D	
***** Consult herbicide labels for specific instructions on rates, timing, soil type restrictions, adjuvants, crop injury concerns, and weeds controlled.**			

Non-treated check. *Courtesy of C. Cahoon, Virginia Tech.*

Atrazine plus *S*-metolachlor PRE followed by Atrazine POST. *Courtesy of C. Cahoon, Virginia Tech.*

Foliar Fungicides for Control of Anthracnose in Grain Sorghum

Active ingredient	Fungicide trade name	Application rate per acre	PHI (days)	Remarks
Azoxystrobin	Quadris	6.0-15.5	14	Group 11 fungicides. To reduce the development of fungi resistant to this group of fungicides, do not apply more than two sequential applications of this or other group 11 containing fungicide per season.
Pyraclostrobin	Headline	6.0-12.0	7	Group 11 fungicides. To reduce the development of fungi resistant to this group of fungicides, do not apply more than two sequential applications of this or other group 11 containing fungicide per season.
Azoxystrobin + Propi-conazole	Quilt	10.5-14.0	21	Group 11 fungicides. To reduce the development of fungi resistant to this group of fungicides, do not apply more than two sequential applications of this or other group 11 containing fungicide per season.
Picoxystrobin	Aproach	6.0-12.0	Do not apply after flowering.	Group 11 fungicides. To reduce the development of fungi resistant to this group of fungicides, do not apply more than two sequential applications of this or other group 11 containing fungicide per season.
fluxapyroxad + pyraclostrobin	Priaxor	4.0 – 8.0	21	Do not make more than one application. Do not apply more than 8 fl oz/A per season.



Sorghum leaf with symptoms and signs of anthracnose.

Comparison of fungicide efficacy for control of sorghum anthracnose. Bars with same letters are not significantly different according to Fischer's Protected LSD (*P*=0.05). Fungicides were most effective when applied between the boot growth stage and heading.