



PSS-2129

Failed Cotton Herbicide Rotation Restrictions to Sorghum in Oklahoma

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Effective weed management is paramount for ensuring successful crop production and sustaining agricultural productivity over time. Herbicides serve as indispensable tools in this endeavor, aiding farmers in controlling weed populations and safeguarding the health of their crops. In Oklahoma, producers have encountered challenges related to failed cotton crops and the subsequent complications arising from herbicide rotation when transitioning to sorghum. Residual herbicides remain active in the soil for an extended period after application, providing ongoing weed control by inhibiting weed seed germination or growth. They are typically used for long-term management in both pre- and post-emergence scenarios. Non-residual herbicides are fast acting and degrade quickly, affecting only the weeds present at the time of application, without providing long-term control. Non-residual herbicides are typically used for immediate control of actively growing weeds.

When cotton crops fail due to various factors such as adverse weather conditions, pest infestations or disease outbreaks, producers often face obstacles in transitioning to sorghum due to the persistence of herbicide residues in the soil. These residual herbicides, originally applied for weed control in cotton, can linger in the soil and disrupt the growth of subsequent crops like sorghum, posing significant challenges to the rotation process.

This publication provides an up-to-date listing of herbicide rotational restrictions for sorghum planted after failed cotton in Oklahoma. Using information on commonly used herbicides in cotton production and their residual effects on sorghum crops, farmers can make informed decisions to safeguard their crops against potential herbicide damage and maximize yields.

Table 1. Herbicide rotational restrictions for sorghum planted after failed cotton in Oklahoma.

Herbicide*	Component Herbicides	MOA	Sorghum Plant Back Restrictions	Notes
2,4-D LV6	2,4-Dichlorophenoxyacetic Acid	4	7 days	
AIM EC	Carfentrazone	14	0 days	
Assure II	Quizalofop	1	4 months	
Caparol	Prometryn	5	Next Season	
Clarity	Dicamba	4	15 days	
Dual Magnum	S-Metolachlor	15	0 months	Replant only with Concep-treated or screen-treated seed.
Fusilade DX	Fluazifop	1	2 months	Do not rotate to grass crops within 2 months (60 days) after application.
Fusion	Fluazifop Fenoxaprop	1	2 months	Do not rotate to grass crops within 2 months (60 days) after application.

Table 1. Herbicide rotational restrictions for sorghum planted after failed cotton in Oklahoma. (Cont'd)

Herbicide*	Component Herbicides	MOA	Sorghum Plant Back Restrictions	Notes
Roundup Power Max	Glyphosate	9	0 months	
Gramoxone SL 2.0	Paraquat	22	0 months	
Liberty 280 SL	Glufosinate-Ammonium	10	6 months/180 days	
Direx 4L	Diuron	7	4 months	May be planted the following spring after application.
Engenia	Dicamba BAPMA Salt	4	14-28 days	Rotation intervals increase with higher application rates. Days listed are based on after receiving 1 inch of rainfall.
Enlist Duo with Colex-D Technology	2,4-D Choline Salt Plus Glyphosate DMA Salt	4 & 9	7 days	Days listed are based on after receiving 1 inch of rainfall.
Enlist One with Colex-D Technology	2,4-D Choline Salt	4	7 days	Days listed are based on after receiving 1 inch of rainfall.
MSMA 6.6	MSMA	17	0 months	
Outlook	Dimethenamid-P	15	0 months	Replant only with Concep-treated or screen-treated seed.
Poast Plus	Sethoxydim	1	1 month	
Prowl H2O	Pendimethalin	3	10 months	Rotation restrictions can be increased if adequate rainfall is not received.
Select 2 EC	Clethodim	1	1 month	
Sequence	Metolachlor & Glyphosate	15 & 9	0 months	Replant only with Concep-treated or screen-treated seed.
Sharpen	Saflufenacil	14	0 months	
Staple LX	Pyriithiobac	2	18 months	Do not rotate to grain sorghum in the season following a Staple LX application. Sorghum can be planted 10 months following if over 25 inches of precipitation and soil mixing has occurred (see label for details).
Tavium Plus Vapor-Grip	Dicamba & S-Metolachlor	4 & 15	6 months	
Treflan HFP	Trifluralin	3	12 months	
Valor SX	Flumioxazin	14	1 month	Days listed are based on after receiving 1 inch of rainfall.
Warrant	Acetochlor	15	0 months	
XtendiMax with Vapor Grip Technology	Dicamba DGA Salt	4	15 days	

*This list is not all inclusive of herbicides that growers can potentially apply to cotton. Herbicide labels should be consulted for further information or if chemical is not present on the list.



Josh Lofton
Cropping Systems Specialist

Josie Rice
Plant and Soil Sciences Graduate Student



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