



Wheat Herbicide Rotation Restrictions to Soybean in Oklahoma

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Herbicides can remain as a residual in the soil for extended periods affecting crop rotation options and the specific timing of those plantings. It is important to understand the rotational restrictions of the specific herbicide(s) that may be used and how it impacts crops the following season. While this document can be used as a guide to identify herbicides and their restrictions with soybean, growers should always check the labels regarding specific rotation intervals. This is specifically true where rotational restrictions are highly variability due to the influence of soil pH, soil texture, application rates or moisture received between application and planting.

Herbicides can be applied as single component or as pre-mixes (i.e. containing a combination of multiple herbicides). Herbicide pre-mixes can be a challenge, not only because there are potentially multiple modes of actions but rates of the individual herbicide might be different than when applying individual herbicide products.

Sulfonylurea-tolerant soybean help the soybean plant

handle previously applied Sulfonylurea herbicides, often by shortening the rotation restriction following application. Often times this is critical for rotating wheat to soybean in a double-crop system where the time between application of wheat herbicides and soybean planting is limited. Additionally, the BOLT soybean trait provides improved tolerance to SU herbicides. However, while tolerance to the SU herbicides are provided with these traits rotational restrictions must be followed to minimize potential crop injury.

The tables below are a summary of common herbicides used in Oklahoma winter wheat and their rotation restrictions for soybean. Detailed information regarding use rate per acre and wheat application timing can be found in PSS-2786, Single Herbicides and Herbicide Premixes for Use in Winter Wheat. This information is meant to summarize this information, when questions or details regarding specific chemistries arise the individual label should be consulted.

Premix Herbicide	Component Herbicides	MOA	Soybean Rotational Restriction	Notes
Affinity BroadSpec (FMC)	Thifensulfuron Tribenuron	ALS Inhibitor ALS Inhibitor	1-7 Days	Time depends on rate applied.
Agility SG (FMC)	Dicamba Thifensulfuron Tribenuron Metsulfuron	Growth regulator ALS Inhibitor ALS Inhibitor ALS Inhibitor	4 Months	STS and BOLT soybean only.
Ally Extra SG (FMC)	Thifensulfuron Tribenuron Metsulfuron	ALS Inhibitor ALS Inhibitor ALS Inhibitor	4 Months	STS and BOLT soybean only.
Anthem Flex (FMC)	Pyroxasulfone Carfentrazone	Shoot Inhibitor PPO Inhibitor	0-4 Months	4 month restriction for higher application rates.
Axiom DF (Bayer)	Flufenacet Metribuzin	Shoot Inhibitor PS II Inhibitor	0 Days	

Finesse Cereal and Fallow (FMC)	Chlorsulfuron Metsulfuron	ALS inhibitor ALS inhibitor	4 Months	STS and BOLT soybean only.
Harmony Extra SG (FMC)	Thifensulfuron Tribenuron	ALS inhibitor ALS inhibitor	7,14 Days	14 days on light textured on soil pH >7.9
Huskie (Bayer)	Pyrasulfotole Bromoxynil	HPPD inhibitor PS II inhibitor	4 Months	
Kochiavore (WinField)	2,4-D Bromoxynil Fluroxypyr	Growth regulator PS II Inhibitor Growth regulator	4 months	
Orion (Syngenta)	Florasulam MCPA	ALS inhibitor Growth regulator	9 Months	
Quelex (Corteva/Dow)	Halauxifen Florasulam	Growth regulator ALS inhibitor	3 Months	In the event of cereal crop failure, no-till soybean may be planted 45 days after Quelex application.
Rave (Syngenta)	Triasulfuron Dicamba	ALS inhibitor Growth regulator	11-36 Months	Time depends on genetics, moisture, and pH. Lower for STS/BOLT soybean with higher rain and lower pH.
Sentrallas (FMC)	Fluroxypyr Thifensulfuron	Growth regulator ALS inhibitor	4 months	
Starane (Corteva)	Florasulam Fluoxypyr	ALS Inhibitor Growth regulator		Starane NXT has a 4 month restriction. Starane Flex has a 9 month restriction.
Talinor (Syngenta)	Bicyclopyrone Bromoxynil	HPPD inhibitor PS II inhibitor	10-12 Months	Starane NXT has a 4 month restriction. Starane Flex has a 9 month restriction.

Table 1. Common wheat herbicide pre-mixes, their chemical components, rotational restrictions to soybean, and any notes for application.

Herbicide	Common Name	MOA	Soybean Rotational Restriction	Notes
Aggressor	Quizalofop	ACCcase Inhibitor	4 Months	
2,4-D Amine or Ester	2,4-D Amine or Ester	Growth Regulator	30 Days	
Aim EC	Carfentrazone	PPO Inhibitor	0 Days	
Ally XP	Metsulfuron	ALS Inhibitor	4-22 Months	4 months for STS and BOLT soybean.
Amber Custom-Pak	Trisulfuron	ALS Inhibitor	11-36 Months	Shorter time for STS/BOLT soybean; other restrictions are associated with soil conditions and location
Axial XL	Pinoxaden	ACCcase inhibitor	90 Days	
Beyond	Imazamox	ALS Inhibitor	0 Days	
Broclean, Brox, 2EC, Moxy 2E	Bromoxynil	PS II inhibitor	30 Days	
Dicamba, Clarity	Dicamba	Growth Regulator	14-28 Days	Timeframe will depend on region and rainfall experienced between application and planting.
Everest 3.0	Flucarbazone	ALS Inhibitor	4-12 Months	4-6 months for STS/BOLT soybean. 6-12 months for non-STS soybean dependent on soil pH
Express	Tribenuron	ALS Inhibitor	7 Days	
Glean XP	Chlorsulfuron	ALS Inhibitor	4-14 Months	4 months for STS and BOLT soybean.
Harmony SG/Harmony GT	Thifensulfuron	ALS Inhibitor	0 Days	See comments above for Harmony Extra
Olympus	Propoxycarbazone	ALS Inhibitor	4-12 Months	4 months for STS and BOLT soybean.
Outrider	Sulfosulfuron	ALS Inhibitor	3-12 Months	3 months for STS/BOLT soybean systems

Osprey	Mesosulfuron	ALS Inhibitor	90 days	
Pre-Pare	Flucarbazone	ALS Inhibitor	4-12 Months	4-6 months STS/Bolt Soybean, 6-12 months all other soybean; length of time dependent on soil pH
Powerflex HL	Pyroxsulam	ALS Inhibitor	3 Months	Avoid planting of soybean prior to April 30th
Metribuzin 75 DF	Metribuzin	PS II inhibitor	4 Months	
Zidua	Pyroxasulfone	Shoot Inhibitor	0-4 Months	4 months for 4oz/ac rate, otherwise no restriction.

Table 2. Common wheat herbicides, their chemical names, rotational restrictions to soybean and any notes for application.

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