

Re-Cropping Intervals for Potatoes

Potatoes are sensitive to residues left in the soil by a range of commonly used herbicides. These residues may alter the appearance of the foliage of the potato crop, interfere with normal root development, reduce crop yields and cause abnormalities in the harvested tubers. Herbicide carry over is especially problematic in potato fields planted for use as seed - as the herbicides may impair the performance of the seed crop in the next growing season. The duration of time over which herbicide residues may remain at damaging levels in the soil is determined by the chemistry of the herbicide, the rate, timing and method of herbicide application, soil properties, tillage practices and weather conditions in years following treatment. Repeated applications of the same herbicide or related products can result in cumulative effects.

**** The information provided in this document represents a guide only and reflects information available at the time of publication (February 2016). Growers are urged to consult with extension staff and product manufacturers for more information on safe re-cropping intervals.**

Product Trade Name	Active Ingredient(s) (Bolded Ingredient = re-cropping problem for potatoes)	Re-Cropping Interval (Years)	Comments
2,4-D	2,4-D	0	
Aatrex	atrazine	2-5	Recropping interval depends on rate applied and past history of applications. Bioassay recommended
Accent (Challenger)	nicosulfuron	2	Bioassay is recommended
Aim	carfentrazone	0	
Altitude	imazamox + fluroxypyr + MCPA	2	
Altitude FX	imazamox + fluroxypyr + MCPA + clopyralid	2-4	Addition of clopyralid extends re-cropping interval, especially for seed potatoes
Amitrol 240	amitrole	1	
Ares	imazamox + imazapyr	2	History of application of Group 2 products may increase recropping risk. Bioassay is recommended
Assert	imazamethabenz + furasulam + MCPA	2	History of application of Group 2 products may increase recropping risk. Bioassay is recommended
Authority	sulfentrazone	2-4	Length of recropping period increases with drought and high soil pH.
Avadex	triallate	0	

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Axial	pinoxaden		
Axial Extreme	pinoxaden + fluroxypyr	2	
Barricade	thifensulfuron + tribenuron + fluroxypyr	2	
Basagran	bentazon	0	
Blackhawk	2,4-D + carfentrazone	0	
Blazer	acifluorfen	0	
Broadband	pinoxaden + florasulam		
Bromoxynil (+ MCPA or 2,4-D)	bromoxynil	0	
Cleanstart	glyphosate + carfentrazone	0	
Clethodim (Select, Centurion, Arrow)	clethodim	0	
Clever	quinclorac	2-4	Length of recropping period increases with drought and low soil organic matter. Biossay recommended
Clodinafop (Signal, Horizon, NextStep etc)	clodinafop	0	
Curtail M	clopyralid + MCPA	2-4	Longer recropping period refers to seed potatoes
Dicamba (+ mecoprop + MCPA)	dicamba (+ mecoprop + MCPA)	0	
Diclorprop + 2,4-D	diclorprop + 2,4-D	0	
Diquat	diquat	0	
Distinct	dicamba + diflufenzopyr	0	
Dual II Magnum	metolachlor	0	
Dyvel	dicamba + MCPA	0	

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Eclipse III	clorpyralid + glyphosate	2-4	Longer recropping period refers to seed potatoes
Edge	ethafluralin	1	
Enforcer	fluroxypyr + 2,4-D + bromoxynil	2	
Enforcer M	fluroxypyr + MCPA + bromoxynil	2	
Eptam	EPTC	0	
Ecscort	metsulfuron	4	High soil pH increases recropping risk. Bioassay recommended
Everest	flucarbazone + fluroxypyr	2	Length of recropping period increases with drought
Express Pro	tribenuron + metsulfuron	4	High soil pH increases recropping risk. Bioassay recommended
Fonoxaprop (Puma, HellCat, Vigil, Cougar)	fenoxaprop	0	
Florasulam + 2,4-D (Frontline, Spitfire)	florasulam + 2,4-D	1	
Florasulam + Curtail M	florasulam + clorpyralid + MCPA	2-4	Longer recropping period refers to seed potatoes
Flucarbazone (Everest, Sierra)	flucarbazone	1	
Flumioxazin (Chateau, Valtera)	flumioxazin	1	
Fluroxypyr + 2,4-D (Attain, Rush, Flurox)	fluroxypyr + 2,4-D	2	
Focus	carfentrazone + pyroxasulfone	1	
Fortress	trifluralin + triallate	1	
Frontier	dimethamid	0	
Glyphosate	glyphosate	0	

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Glufosinate (Good Harvest, Liberty)	glufosinate	0	
Gramoxone	gramoxone	0	
Grazon	picloram + 2,4-D	5	Extremely persistent
Harmony K	clodinafop + thifensulfuron + tribenuron + dicamba	1	
Heat	saflufenacil		
Imazamethabenz (Asset, Avert)	imazamethabenz	2	History of application of Group 2 products may increase recropping risk. Bioassay is recommended
Imazethapyr (Pursuit, Phantom, Gladiator, Multistar, Kamikaze)	imazethapyr	2	History of application of Group 2 products may increase recropping risk. Bioassay is recommended
Inferno	flucarbazone + tribenuron	1	
Infinity	bromoxynil + pyrasulfatole	1	
Kerb	propyzamide	0	
Ko-Act	tribenuron + 2,4-D	0	
Korrex	florasulam + dicamba	1	
Linuron (Lorox, Linuron)	linuron	0	
Lontrel	clopyralid	2-4	Longer recropping period refers to seed potatoes
MCPA	MCPA	0	
Mecoprop	mecoprop	0	
Metribuzin (Sencor)	metribuzin	0	
Metsulfuron (Ally, Accurate)	metsulfuron	4	High soil pH increases recropping risk. Bioassay recommended
Momentum	clopyralid + fluroxypyr	2-4	Longer recropping period refers to seed potatoes

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Muster	ethametsulfuron	3	Bioassay recommended
Odyssey (Ultra)	imazamox + imazethapyr	2	History of application of Group 2 products may increase recropping risk. Bioassay is recommended
Optica Trio	MCPA + mecoprop + dichlorprop	0	
Outlook	dimethanamid	0	
Overdrive	dicamba + diflufenzopyr	0	
Paradigm	florasulam + halauxifen		
Permit	halosulfuron	1	
Pinnacle	thifensulfuron	1	
Pixxaro	halauxifen + fluroxypyr + MCPA	2	
Poast	sethoxydim	0	
Prestige	fluroxypyr + clopyralid + MCPA	2-4	Longer recropping period refers to seed potatoes
Primextra II Magnum	metolachlor + atrazine	2-4	Recropping interval depends on rate applied and past history of applications. Biosassay recommended
Prism	rimsulfuron	0	
Pulsar	dicamba + fluroxypyr	2	
Quizalofop (Assure, Yuma)	quizalofop	0	
Reclaim	metsulfuron + aminopyralid + 2,4-D	4	High soil pH increases recropping risk. Bioassay recommended
Restore II	aminopyralid + 2,4-D	4	High soil pH increases recropping risk. Bioassay recommended
Retain SG	thifensulfuron + tribenuron + fluroxypyr + 2,4-D	2	
Reward	diquat	0	

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Salute	imazamox + imazapyr + clopyralid	2-4	History of application of Group 2 products may increase recropping risk. Longer recropping interval refers to seed potatoes. Bioassay is recommended
Simazine (Princep 9)	simazine	4	High soil pH and drought extend recropping period. Bioassay recommended
Simplicity	pyroxsulam	0	
Solo	imazamox	2	History of application of Group 2 products may increase recropping risk. Bioassay is recommended
Stellar	florasulam + fluroxypyr + MCPA	2	
Tandem	pyroxsulam + fluroxypyr	2	
Tensile	imazamox + clopyralid	2-4	History of application of Group 2 products may increase recropping risk. Longer recropping interval refers to seed potatoes. Bioassay is recommended
Thifensulfuron/tribenuron (Refine, Deploy, Nimble)	thifensulfuron + tribenuron	1	
Topramezone	topramazone	0	
Tordon	picloram	5	Extremely persistent
Tralkoxydim	tralkoxydim	0	
Traxos	pinoxaden + clodinafop	0	
Tribenuron (Express, Spike, Nuance, Inferno, FirstStep)	tribenuron	1	
Trifluralin (Treflan, Rival, Bonanza)	trifluralin	1	
Triton C	thifensulfuron + tribenuron + quinclorac	2-4	Length of recropping period increases with drought and low soil organic matter. Bioassay recommended
Triton K	tribenuron + dicamba + 2,4-D	1	

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Trophy	fluroxypyr + MCPA	2	
Tundra	fenoxaprop + bromoxynil + pyrasulfatole	0	
Varro	thiencarbazon e	2	History of application of Group 2 products may increase recropping risk. Longer recropping interval refers to seed potatoes. Bioassay is recommended
Velocity	thiencarbazon e + bromoxynil + pyrasulfonate	2	History of application of Group 2 products may increase recropping risk. Longer recropping interval refers to seed potatoes. Bioassay is recommended
Velpar	hexazione	3-5	Bioassay recommended
Viper	imazamox + bentazon	2	History of application of Group 2 products may increase recropping risk. Longer recropping interval refers to seed potatoes. Bioassay is recommended

Explanation of Recropping Intervals

Insufficient information available to make recommendation

0 = OK to plant potatoes next crop year

1 = do not plant potatoes next crop year, but OK after that

2, 3, 4 or 5 = wait for 2, 3, 4 or 5 years (as noted) full cropping seasons before planting potatoes

Bioassay = plant a test strip of potatoes in the field a year ahead of the planned crop

Length of recommended recropping interval may be extended for seed potatoes as herbicide residues may alter the way the crop canopy looks which interferes with inspections required for seed potato certification.

Sources of Information

- a) Michigan State Co-operative Extension Bull
 (<http://www.msuweeds.com/assets/2014-WeedGuide/2014WGTable12.pdf>)
- b) North Dakota Crop Rotation Restrictions
 (<https://www.ag.ndsu.edu/potatoextension/HerbicideCarryovertable.pdf>)
- c) 2015 Guide to Crop Protection - Government of Saskatchewan



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