

COMMONLY USED HERBICIDES – Mode of Action

This quick-list of herbicides commonly used in Montana cropping systems was put together by A.J. Bussan, Extension Crop Weed Specialist at MSU. For more information regarding these herbicides please contact Paul Dixon at the Extension Office, 256-2828 or pdixon@montana.edu.

The list contains the Product Trade Name and active ingredient, the mode of action, the crops in which it is used, and the weeds or weed classes controlled.

Product	Mode of Action	Crop	Weeds*
Achieve (tralkoxydim)	Accase Inhibitor	All wheats and barley	WO, PD, GF
Assure II (quizalofop)	Accase Inhibitor	broadleaf crops	grasses
Hoelon (diclofop)	Accase Inhibitor	wheat and barley	WO, PD, GF
Horizon/ Discover (clodinafop)	Accase Inhibitor	wheat only	WO, PD, GF
Poast (sethoxydim)	Accase Inhibitor	broadleaf crops	grasses
Puma (fenoxypop); Cheyenne, Dakota, and Tiller all contain fenoxypop	Accase Inhibitor	wheat and barley	WO, GF
Select (clethodim)	Accase Inhibitor	alfalfa	grasses
Avenge (difenzoquat)	membrane disruptor	wheat and barley	WO
Fargo (trilalate)	emergence inhibitor	grain and broadleaf crops	WO
Prowl (pendimethalin)	mitosis inhibitor	alternative crops	grass and broadleaf
Treflan (trifluralin)	mitosis inhibitor	alternative crops & barley	grass and broadleaf
Sonalan (ethalfluralin)	mitosis inhibitor	alternative crops	grass and broadleaf
Assert (imazamethabenz)	ALS inhibitor	grain, sunflower	WO
Maverick	ALS inhibitor	wheat	downy brome

(sulfesulfuron)			
Everest (flucarbazone)	ALS inhibitor	wheat	WO, GF
Olympus (?) - not labeled yet	ALS inhibitor	wheat	downy brome
Ally (metsulfuron)	ALS inhibitor	grain, range	broadleaves
Amber (triasulfuron)	ALS inhibitor	grain, range	broadleaves
Canvas (metsulfuron + tribenuron + thifensulfuron)	ALS inhibitor	grain	broadleaves
Express (tribenuron)	ALS inhibitor	grain	broadleaves
Finesse (metsulfuron + chlorsulfuron)	ALS inhibitor	grain	broadleaves
Glean (chlorsulfuron)	ALS inhibitor	grain	broadleaves
Harmony (thifensulfuron)	ALS inhibitor	grain	broadleaves
Harmony Extra (tribenuron + thifensulfuron)	ALS inhibitor	grain	broadleaves
Peak (prosulfuron)	ALS inhibitor	grain	broadleaves
Plateau (imazapic)	ALS inhibitor	range	grass and broadleaves
Pursuit (imazathapyr)	ALS inhibitor	pulse crops, alfalfa	grass and broadleaves
Raptor (imazamox)	ALS inhibitor	pulse crops, alfalfa	grass and broadleaves
Roundup/ Landmaster/ Fallowmaster/ Glyphomax (glyphosate)	EPSP inhibitor	burndown, Roundup-Ready crops	non-selective
Touchdown (sulfosate)	EPSP inhibitor	burndown	non-selective
Gramoxone (paraquat)	membrane disruptor	burndown, harvest aid	non-selective
Banvel, Clarity (dicamba)	growth regulator	grass crops	broadleaves

2,4-D	growth regulator	grass crops	broadleaves
Curtail (clopyralid, 2,4-D)	growth regulator	grass crops	broadleaves
Paramount (quinclorac)	growth regulator	fallow	bindweed
Starane (fluroxypyr)	growth regulator	grass crops	broadleaves
Stinger (clopyralid)	growth regulator	grass crops, fallow	Canada thistle
Tordon (picloram)	growth regulator	range, fallow	noxious weeds, wild buckwheat
Tough (pyridate)	photosynthesis inhibitor	chickpeas	Russian thistle, kochia
Buctril (bromoxynil)	photosynthesis inhibitor	grain, alfalfa	broadleaves

* PD = persian darnel (*Lolium persicum*); WO = wild oat (*Avena fatua*); GF = green foxtail (*Setaria viridis*); downy brome (*Bromus tectorum*); bindweed (*Convolvulus arvensis*); Canada thistle (*Cirsium arvense*); buckwheat (*Polygonum convolvulus*)