



Weed Control

The recent dry weather has made pre-emergence weed control a little bit trickier on many crops. Ideally we would like to apply the residual herbicides e.g. metribuzin (Shotput, Sencorex Flo etc.), Defy etc. when soils are moist however this doesn't always happen and control can be compromised as a result. Most growers prefer to leave the weed control application as close to emergence as possible to maximise the residual activity for as long as possible i.e. for 6-8 weeks post application. This makes sense in normal conditions, so that the crop can get a head start and smother late germinating weeds as the crop closes in the rows. However where the forecast is dry or soil has been very dry then the performance of some of these products can easily be compromised, with the result that it is the contact herbicides e.g. Gozai, Spotlight Plus that are doing most of the heavy lifting. In that case it may well be better to apply the residual herbicides 7-10 days pre-emergence onto damp soils rather than waiting. While some growers gamble on waiting until 5-10% emergence this can set the crop back especially if there is frost around as was the case in 2021.



Picture 1; Good weed control achieved when soils are moist at herbicide application



Picture 2; Herbicide scorch can set the crop backwards

In terms of achieving the best weed control, then pre-emergence is best and will give more broadspectrum control than post emergence options. For post emergence applications there are few choices and there are also label restriction for the metribuzin products so check the details before applying. Choose a good residual product and mix it with a partner product that will broaden the weed spectrum, remember this will change for field to field. Use 75-90% drift reducing nozzles to reduce the risk of getting poor coverage on windy days, make sure the nozzles are alternated between backward and forward facing, this will give better coverage around clods etc. they will also avoid drift near watercourses. Remember we are obliged to use the [STRIPE Guidelines](#) to protect watercourses.

Tips to reduce drift and improve coverage;

1. Use drift reducing nozzles (75-90% types)
2. Keep water volumes at around 200 L/ha, although some sprayers are operating at lower volumes, 200 L/ha is generally considered best for residual herbicide applications.
3. Keep booms no more than 0.5m above the ridge tip to reduce drift and improve coverage
4. Keep pressure at about 2.5 bar, higher pressure will reduce droplet size and increase drift.
5. Slow down, speeds over 10-12 km/hr will increase drift and will make booms more unstable.
6. Dead calm days are not considered the best conditions for spraying, a light breeze will help to suck the spray down towards the ground. However watch out for cross winds as this will deposit more herbicide on one side of the drill.

Table 1 below shows the list of herbicides that are approved for use on potatoes for the 2022 season. To find out more about each product click on the name of the product to access it's label.

Table 1: Approved Herbicides for Potatoes 2022

Product (Active ingredient)	Company	Mode of Action	Crop timing	Rate /ha	Comments
Anthem/ Pendifin (PDM 400 g/L)	Croplink	Residual /Contact	Pre Emergence	3.3 L	Ideally tank mix with Metribuzin @ 0.5 kg
Basagran (Bentazone 480 g/L)	BASF	Contact	Post Emergence	1.1 L	Limited weed spectrum. Good on brassicas, cleavers, chickweed, marigold, redshank.
Buzzin Shotput (Metribuzin 700 g/l)	Croplink/ DHM	Contact & Residual	Earlies -Pre Emerge Maincrop pre & post up to 6" high	*0.75 kg depending on soil type	Wide spectrum, knotgrass best applied as pre- em. Bindweed best applied as post emerge. Cleavers resistant. Check labels for varietal tolerance
Claw 100 / Falcon (Propaquizafop 100 g/L)	Croplink /DHM	Contact	Post Emergence	1.0-1.5 L	Will severely check amg at the 1.5 l/ha rate up to 3 leaf stage of the grass.
Defy/ Crozier Roxy/ Quidam (Prosulfcarb 800 g/L)	Syngenta / Barclay/ DHM/ Denn	Residual	Pre Emergence	4.0 L	Improved control of grass weeds, chickweed, speedwells.
Emerger/ Chanon (Aclonifen 600 g/l)	Bayer/DHM	Contact	Pre Emergence	2.0-3.0 L	Can be used in a mix use higher rates for cleavers & knotgrass
Fusilade Max (Fluazifop-P-butyl 125 g/L)	Nufarm	Contact	Post Emergence	1.5-3.0 L	Grass weed control. No oil Required
Gozai (Pyraflufen-ethyl 26.5 g/L)	Whelehans	Contact	Pre Emerge or early post emergence	0.4 L	Good mixer with metribuzin containing products
Most Micro/ Fastnet (PDM 365 g/L)	Unichem/ Hygeia	Residual /Contact	Pre Emergence	3.6 L	Good control of AMG, chickweed, groundsel. Tank mix with Metribuzin@ 0.5 kg
Pilot Ultra (Quizalofop-P-ethyl 50 g/l)	Unichem	Contact	Post Emergence	0.75-1.25 L	Vol. cereals, w. oats controlled at lower rates. Use higher rates when weeds are tillering.
Proman (Metobromuron 500 g/l)	Whelehans	Residual	Pre Emergence	4.0 L	Useful mixer for knotgrass, groundsel, charlock & mayweeds
Sencorex Flo (Metribuzin 600 g/l)	Bayer	Contact & Residual	Earlies -Pre Emerge Maincrop pre & post upto 6" high	0.85-1.15 L	Wide spectrum, knotgrass best applied as pre-emerg. Bindweed best applied as post - emg. Cleavers resistant. Check labels for varietal tolerance
Spotlight Plus (Carfentrazone-ethyl 60 g/l)	Whelehans	Contact	Before 10% emergence	0.33 L	Can be used as a desiccant also, but must take the 0.33 l/ha rate from the total dose of 1.6 l/ha
Stallion Sync (PDM 333 g/l + Clomazone 45 g/l)	Whelehans	Residual	Pre Emergence	3.0 L	Good weed spectrum. Apply at least 7 days before emergence.
Stomp Aqua (PDM 455 g/L)	BASF	Residual /Contact	Pre Emergence	2.9 L	Good control of AMG, chickweed, groundsel. Ideally tank mix with Metribuzin @ 0.5 kg
Stratos Ultra (Cycloxydim 100 g/L)	BASF	Contact	Post emergence	1.5– 4.0 L	1.5 L/ha Wild oats 4.0 l/ha for scutch
Titus/ Rimuron (Rimisulfuron 25% ww)	Du Pont	Contact	Post emerge up to 10 " of crop	50 g	Grass weed control plus some BLW e.g. mayweed, cleavers, charlock, poppy. *Must use wetter Ware crops only

While the aim is to achieve as much control of broad leaf weeds as possible pre-emergence, as the choices for post emergence control are limited to Basagran, Sencorex etc. (with varietal restrictions) or Titus, grass weeds can be controlled post emergence by any of the approved graminicides such as Claw, Falcon, Pilot Ultra, Fusilade Max or Stratos Ultra (See Table 4).

Some growers have opted in the past to use glyphosate as a pre-emergence option but remember it is only a contact herbicide and will not have any residual effect, crops should be at least 5 cm from the surface with no cracking visible on the drill. See table 2 for details of common mixes that can give broad spectrum control for a variety of weeds. These mixes should be changed or swapped for different fields to control the various weeds for the individual fields, avoid using one mix to cover all fields as this will likely result in less than optimal control.

Table 2: Common pre-em herbicide options for maincrop potatoes	
Product mix (Rate/ha)	Comments
Metribuzin (Shotput/Buzzin) 0.5 kg or Sencorex Flo 0.6 L + Emerger 2.0 L	Emerger adds cleavers, black bindweed, knotgrass and sowthistle control to sencorex weeds.
Metribuzin (Shotput etc.) 0.5 kg or Sencorex Flo 0.6 L + Defy/Roxy 4 L	Defy adds better control of cleavers and AMG. Useful nightshade control
Stomp Aqua/Most Micro 2.9 L + Metribuzin (Shotput etc.) 0.5 kg or Sencorex Flo 0.6 L	Very useful where black nightshade likely to be a problem. Broad spectrum control but poor on cleavers and bindweed
Stallion 2.5 - 3.0 L + Metribuzin (Shotput etc.) 0.5 kg or Sencorex Flo 0.6 L	Good all round mix. Stallion must be applied at least 7 days before emergence to avoid bleaching etc.
Proman 2.5 L + Metribuzin (Shotput etc.) 0.5 kg or Sencorex Flo 0.6 L	Good on amg, knotgrass, groundsel, charlock & mayweeds. Cleavers not controlled.
Proman 2.0 L + Metribuzin 0.5 kg or Sencorex Flo 0.6 L + Defy/Roxy 2.0 L	Good broad spectrum weed control for dirty fields, suitable for light & medium to heavy soils. On very light or sandy soils leave out the metribuzin.
Spotlight Plus 0.33 L or Gozai 0.4 L + Metribuzin (Shotput etc.) 0.5 kg or Sencorex Flo 0.6 L	Spotlight will give similar control to diquat but must take away the 0.33 L from the total dose of 1.6 L/ha when using for desiccation.

Choosing the correct product as mentioned earlier is critical in achieving the optimum control of weeds. Table 3 below shows the susceptibility of the weeds to different herbicides.

Table 3; Weed susceptibility table 2022

Weed Name	Defy	Emerger	Proman	Sencorex	Spotlight Plus	Stallion	Stomp Aqua	Basagran	Sencorex	Titus
	Pre-Emergence							Post Emergence		
AMG	S	S	S	S		S	S	R	S	MS
Annual nettle		MS	S	S	S	S			S	S
Bl nightshade	S	MS	MS	R	S	S	S (d)	S	MS	MS
Bl bindweed		S	MS	MS	S	MS	MS	MS	S	MR
Black Grass		MS		S		MR	S	R	MS	
Charlock	S	S	S	S	S	S	S	S	S	S
Chickweed	S	S	S	S		S	S	S	S	S
Cleavers	S	S	MR	R	S	MS	MS (d)	S	R	S
C. marigold		R	S			S	S	S	MS	MS
Cranesbill	S	MS	S		MS			S		MS
Cr thistle		R								
Dead nettle R	S		MS	S	S	S	S	MS	S	S
Fat hen		S	S	S	S	S	S		S	MR
Fools parsley			MS			S		S		MS
F penny cress			S	S		S			S	MS
Fumitory		R	MS	S	MS	MS	MS (d)	MS	S	MS
Groundsel		R	S	S	S	S	S	MS	S	S*
Hempnettle				S	S	S	S	MR	S	S
Knotgrass		S	MS	MS	S	S	S	MR	MS	MR
Mayweed		S	S	S	MS	MS	S (d)	S	S	S
Mustard wh								S		S
OSR vol.	S	S	S	S	S	MR	S	S	S	S
Orache	MS	S	S	S	S	S	S	MS	S	MR
P. persicaria	MS	S	MS	S	S	MS	S	S	S	MS
Pansy, field	R	S	R	S	MS	S	S	R	MS	MR
Poppy		S	S	S	MS	S	S	MS	S	S
Redshank	S	S	MS	S	S	MS	S	S	S	S*
Rough mg	S						MS			S
Rye grass per		MR		S		MR			S	S
Scutch				R					R	MS
Small nettle		MS				S	S	S		S
Sh. purse		S	S	S	S	S	MS	S	S	S
Sheep's sorrel				S					S	
Sowthistle		MS	S	MS	MS	MS	MS	MS	MS	MS
Speedwell	S	MS	MR	S	S	S	S	MS	S	R
Wild oats	MS	R	S			MR				MS

S - Susceptible

MS –Moderately susceptible

MR- Moderately resistant

R - Resistant

(d) = if applied in dry conditions follow up application of a post emergence herbicide may be needed.

*** Titus- improved control when mixed with 0.2kg/ha of metribuzin + adjuvant 0.1% volume.**

Table 4 shows the various graminicides that are available for potatoes, the grass weeds that they control and the rates required.

Table 4: Approved Graminicide Herbicides 2022

	Falcon/Claw100 Rate (L/ha)	Fusilade Max Rate (L/ha)	Pilot Ultra Rate (L/ha)	Stratos Ultra Rate (L/ha)
V. Cereals	0.7 - 1.0	1.0 - 1.5	0.75 - 1.25	2
Wild oats	0.7 - 1.0	1.0 - 1.5	0.75 - 1.25	1.5
Annual Meadow Grass	Checked @ 0.7 - 1.0 Severely checked @ 1.5	-	-	-
Smooth S. Meadow Grass	-	-	-	2
Italian Rye Grass	-	1.5	1.25	1.5
Perennial Rye Grass	1.2	1.5		1.5
Loose S. Bent	-			1.5
Sterile Brome	0.7 - 1.0	1.0 - 1.5		2
Black Grass	-	1.0 - 1.5		2
Black Bent	-	3		3
Creeping bent	-	3	-	-
Scutch	1.5	3	2.5	3.0 - 4.0
Authorised crops	Ware	Ware & Seed	Ware	Ware & Seed

Teagasc have produced a video looking at how to achieve the best control of weeds in potatoes in the video attached below.

Teagasc weed control in potatoes



Early Season Blight Control

As Mancozeb based products are no longer available many growers are wondering what are the best products to use in early season to control both early blight (*Alternaria* species) and late blight (*Phytophthora Infestans*). From about the rosette stage of the plant, crops will need protection especially if there are blight conditions at that time.

Alternaria is becoming more of a problem in some of the processing varieties e.g. Markies, Maris Piper, Ramos. Currently there are only two products that claim to give control Vendetta 0.5 l/ha and Amistar 1.0 L/ha. Vendetta contains fluazinam which will also give some control of blight.

For early season late blight control (*Phytophthora*) fungicide applications were mainly dominated by the mancozeb products over the last number of years and with the increase in resistance to fluazinam products there is a risk in using products such as Shirlan. However if pressure is low then there is an opportunity to use Shirlan type products once early in the season, research from Oak Park has shown in the last few years that where 37_A2 is present in the population then it will give no control. Therefore make sure to follow up with a good second application. Other options early in the season are Revus or Ranman but be careful of the maximum number of applications.

A more detailed blight programme will be included in the June newsletter.

World Potato Congress

Don't forget that the World Potato Congress begins at the end of the month and there are still places available for delegates who wish to attend. For registration and details on the event click on the link below.

[World Potato Congress 2022](#)

