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Wing-P[®]

A Flexible Herbicide For Maize



Contents

Wing-P® a flexible herbicide for maize	03
BASF trials	04
Wing-P® additional activity Vs Stomp Aqua	04
Post-emergence	04
Forage maize and grain maize weed spectrum	06
Wing-P® has a very broad window of application giving excellent flexibility on farm	07
The effect of later post-emergence herbicides on yield of grain maize	09
Effect of delaying early post-emergence weed control on yield of grain maize	09
Late emerging weed populations can cause significant impact on yield of grain maize	10
The best approach - control weeds pre-emergence	11
Wing-P® - flexibility with tank mix partners	11
Summary	11

Wing-P® - A flexible herbicide for maize

Crop

Forage and Grain maize

Active ingredients

212.5 g/l dimethenamid-p + 250 g/l pendimethalin

Formulation

EC

Max dose rate

4 l/ha

Timing of application

Pre-emergence and from 1 leaf up to and including 4th leaf stage (GS 10 to GS 14)

Water volume

200-400 litres per hectare

LERAP

B

Flexible application timings

Pre-emergence.
Post-emergence from 1 leaf to 4 leaves

Excellent residual activity

PDF reliability, plus additional activity of DMTA-P on key weeds. Potential to add tank mix partner

Main use

Control of broad-leaved weeds and annual grasses pre- or early post emergence

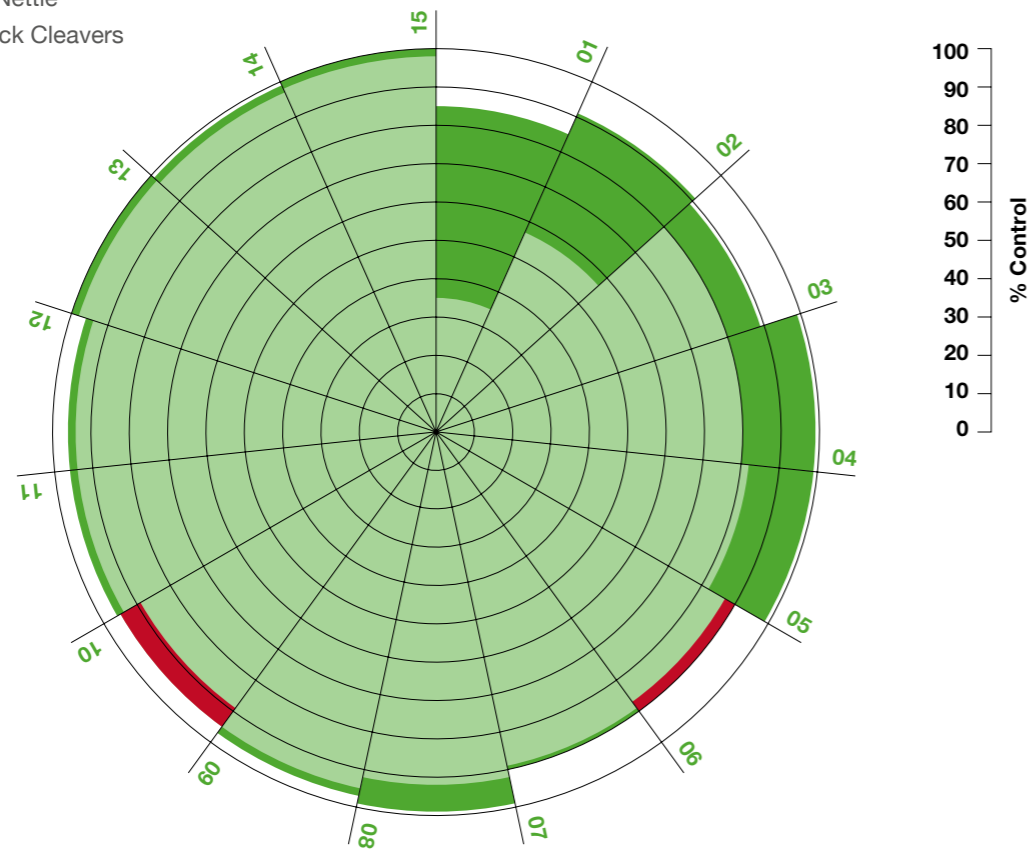
BASF trials Wing-P® - additional activity Vs Stomp Aqua Pre-emergence

- 01 Groundsel
- 02 Annual Meadowgrass
- 03 Black Nightshade
- 04 Sherer's Purse
- 05 CFSpeedwell
- 06 Orache
- 07 Pale Persicaria
- 08 Redshank
- 09 Scentless Mayweed
- 10 Fat Hen
- 11 Chickweed
- 12 Red Deadnettle
- 13 Small Nettle
- 15 Charlock Cleavers

Are pre-emergence herbicides worthwhile in maize?

Pre-emergence herbicide reliability is often questioned in dry conditions. Post-emergence applications are considered very effective but yield potential of the crop can suffer.

Wing-P® provides the flexibility to spray either pre or post-emergence, with confidence that the residual activity will keep weeds at bay.

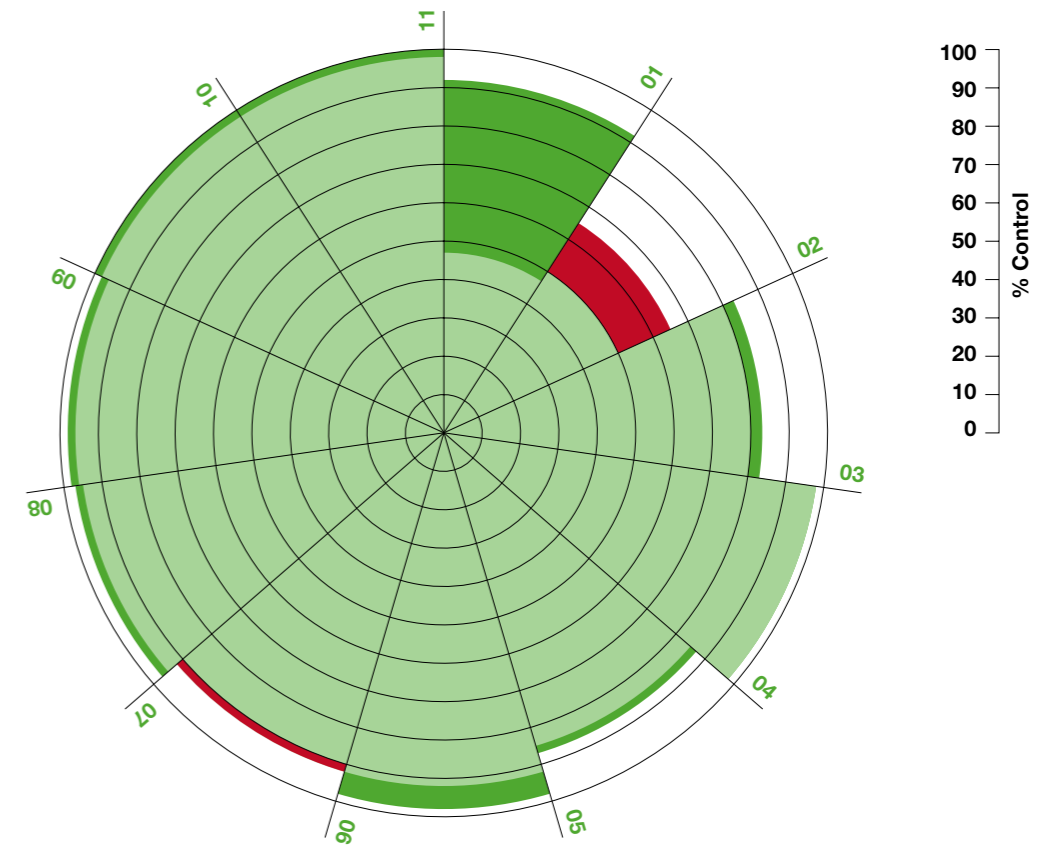


■ Wing-P 3.2 l/ha
■ Stomp Aqua 3.3 l/ha
■ Stomp Aqua outperforms Wing-P

3.2 l/ha Wing-P delivers 800 g/ha pdm + 680 g/ha DMTA-P.
3.3 l/ha Stomp Aqua delivers 1500 g/ha pdm.

BASF trials Wing-P® Vs Stomp Aqua Post-emergence

- 01 Annual Meadowgrass
- 02 Groundsel
- 03 Orache
- 04 Redshank
- 05 Pale Persicaria
- 06 Cleavers
- 07 Chickweed
- 08 Black Nightshade
- 09 Scentless Mayweed
- 10 Small Nettle
- 11 Charlock



■ Wing-P 4.0 l/ha
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Forage maize and grain weed spectrum

Weed Name	Pre-emergence 4.0 l/ha	Post-emergence 4.0 l/ha
Annual Meadowgrass	S	S to 2 lvs
Black Bindweed	S	S to 2 lvs
Black Nightshade	S	S to 3 lvs
Charlock	S	S to 2 lvs
Common Chickweed	S	S to 4 lvs
Common Poppy	MS	-
Common Orache	S	MS to 2 lvs
Corn Marigold	S	-
Fat Hen	S	S to 2 lvs
Field Forget-me-not	MS	-
Field Pansy	MS	-
Groundsel	MS	R
Hemp-nettle (Day Nettle)	S	-
Henbit Dead Nettle	S	-
Knotgrass	S	S to 2 lvs
Pale Persicaria	S	-
Parsley Piert	S	-
Red Dead Nettle	S	-
Redshank	S	S to 2 lvs
Scarlet Pimpernel	S	-
Scented Mayweed	S	S to 2 lvs
Shepherd's Purse	S	S to 2 lvs
Smooth Sowthistle	MS	-
Speedwells	S	S to 2 lvs
Volunteer Oilseed Rape	S	-

Key weeds in maize

Black Nightshade
Fat Hen
Groundsel
Orache

Other problem weeds

Black Bindweed
Chickweed
Knotgrass
Mayweed
Pale Persicaria
Redshank
Sow Thistle

S = Susceptible MS = Moderately susceptible R = Resistant - = No data

Wing-P – Forage maize and grain maize APPROVED LABEL

Wing-P® has a very broad window of application giving excellent flexibility on farm

Current herbicide options, both pre and post-emergence, may have restrictive application timings. The trend towards earlier sowing is leading to more pre-emergence herbicide usage.

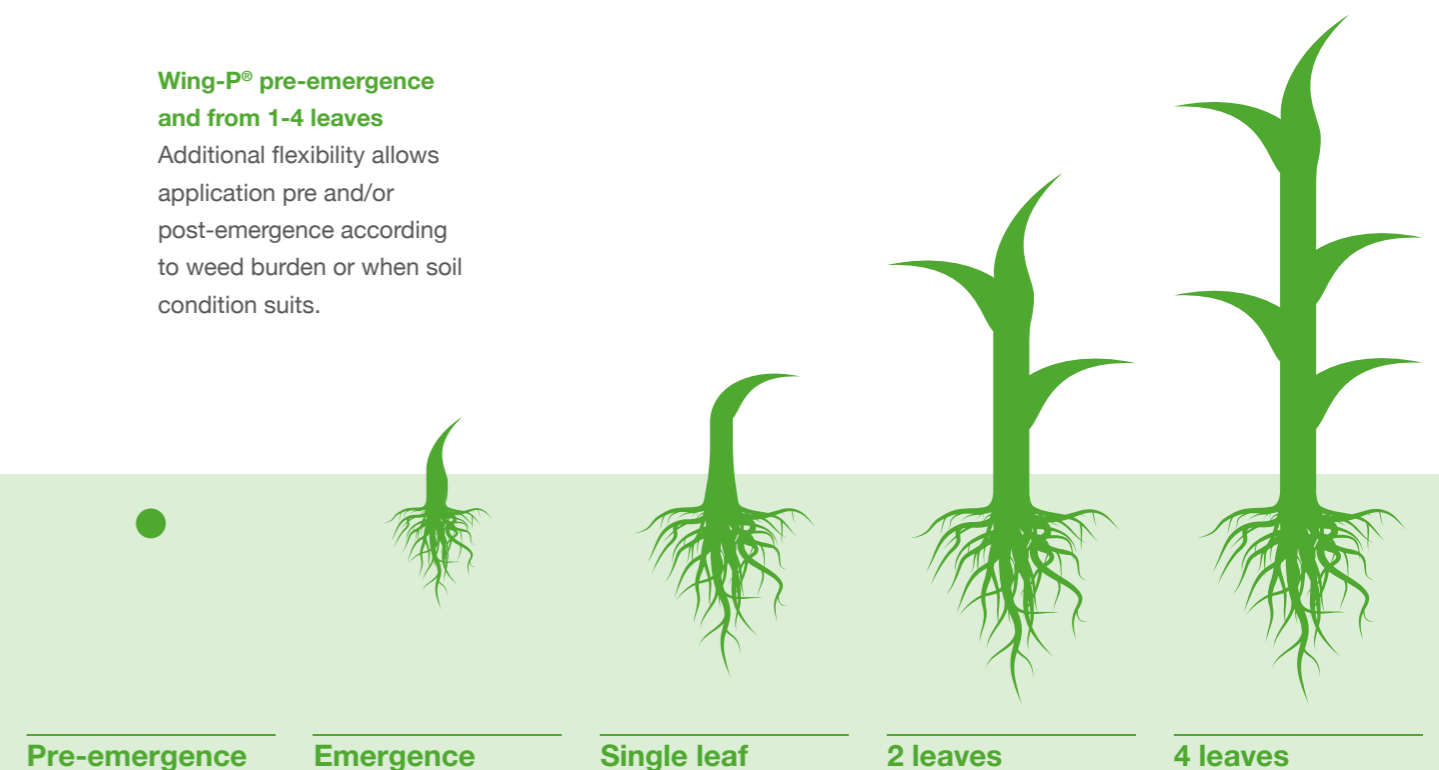
Many maize growers use contractors to spray crops - this often means that herbicides are applied in sub-optimal conditions nor the contractor has come back at a later date. Wing-P® provides flexibility on the application timing, which allows good weed control to be achieved whenever the product is applied as well as excellent residual activity to keep weeds at bay for longer.

A flexible application window

- Helps avoid possible herbicide damage to crop
- Weather delays are less critical
- Wide application window means poor seedbeds can be avoided
- Ease of use
- Excellent crop safety
- Pre-emergence and post-emergence from 1 to 4 leaves
- Can be applied with a tan mix partner (not a label recommendation).

Wing-P® pre-emergence and from 1-4 leaves

Additional flexibility allows application pre and/or post-emergence according to weed burden or when soil condition suits.





The effect of later post-emergence herbicides on yield of grain maize

Herbicide applied @		Weed present at Application	Maize growth Weedy cf weed free crop Dry weight (g/plant)		Reduction in growth due to weed competition
Days after planting	Maize Growth Stage	Dry weight (g/ft ²)	Weedy	Weed free	%
22	2 leaf	0.7	0.4	0.3	(0)
36	4 leaf	9.7	2.4	7.9	70
43	5 leaf	16.1	3.1	23.7	87

Source: Early-season Weed Competition in Corn: Professor R. Hartzler, Dept of Agronomy, Iowa State University.

Delaying post-emergence weed control can significantly reduce maize plant growth rates as a result of competition. The impact increases rapidly as weed control is delayed past early crop emergence.

The effect of early post-emergence weed control on yield of grain maize

Weedy period	Yield (t/ha)	% Yield
0-2 leaf	14.4	100
0-4 leaf	12.6	88
0-6 leaf	12.4	86
0-8 leaf	12.9	89
Whole season	9.5	66

Source: Determination of Optimum Weed Control Timing in Maize, M. Nedin Dogan, Aydin Onay, Filiz Albay 2003.

Delaying early weed control may significantly reduce yield potential. early weed control is vital to maximise yield potential in both grain and forage maize. Wing-P® - early weed control ensures maize yield is maximised.

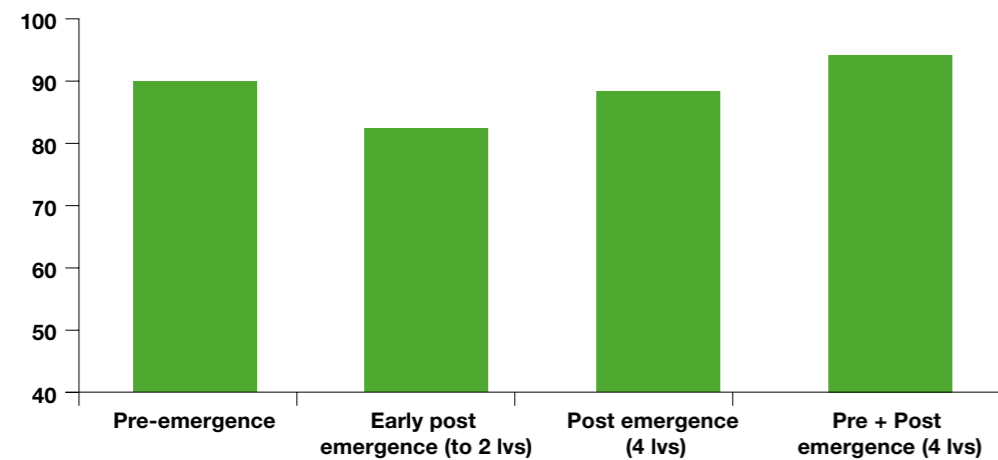
Late emerging of weed populations can cause significant impact on yield of grain maize

Weed control period (Maize GS)	Yield (t/ha)	Yield (%)
From 0 – to 4 leaf	10.4	72
0-6 leaf	11.7	82
0-8 leaf	12.5	87
0-10 leaf	13.4	94
0-12 leaf	14.4	100

Source: Determination of Optimum Weed Control Timing in Maize, M. Nedin Dogan, Aydin Onay, Filiz Albay 2003.

Early weed control is vital but maintaining long term control is equally important in both grain and forage maize. Keeping crops weed free requires good residual activity. Wing-P® - long residual activity ensured yield is maintained.

Herbicide timing: Pre-emergence benefit even in dry conditions



Pre-emergence applications offer reliable control even in dry seasons.

Independent Trials n=4
% Control 60 days after first treatment, 20 days after last treatment

The best approach - control weeds pre-emergence

Wing-P® - the importance of a good herbicide

Early weed control essential to maximise yield

To minimise yield loss:

Low infestation should be removed before the 4 leaf stage of the crop. Moderate to heavy weed infestation should be removed earlier.

Wing-P® post-emergence benefits

- Can be applied up to and including 4 leaves
- Excellent residual activity
- Control weeds past the latest timings of post-emergent contact herbicides
- Not essential to ensure all weeds have emerged
- Easy application timing
- Can be mixed with contact partner to control larger weeds or to broaden weed spectrum

Flexibility with tank mix partners:

- Calaris
- Callisto
- Samson Extra 6%
- Titus
- Jester
- Templier

Note: tank mixes tested at full label rates only. Crop effects noted from tank mix comparable to individual partner product if applied alone.

Wing-P® mixes post-emergence with Jester, Templier and Calaris may result in some crop effects. These are physical compats only.

Wing-P® - flexibility with tank mix partners

Tank mix partner	Improved control post emergence
+ Calaris	Orache, Groundsel, OSR
+ Callisto	OSR, Groundsel
+ Templier	Orache, (Groundsel)
+ Jester	Nettle, Orache, Dock, Perennial Sowthistle
+ Samson extra 6%	Perennial Grassweeds, Ryegrass, Cereals, (Couch)

Ensure all product labels are followed, no liability is accepted for crop safety when these mixes are used.

Summary

- Wing-P® gives excellent, broad spectrum weed control pre and post-emergence
- Wing-P® gives very useful flexibility on farm
 - Pre-emergence and from 1 true leaf up to and including 4 leaves
 - Tank mix partners
 - Controls important weeds
- DMTA-P - an excellent partner for pendimethalin
 - Complementary solubility and soil adsorption
- Increased activity on key weeds
 - Broad weed spectrum
- Excellent residual activity
 - Control late emerging weeds beyond latest application timing of contact herbicides



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Wing-P® A Flexible Herbicide for Maize

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For further information with regard to the warning phrases and symbols for these products please refer to the product labels. Wing-P® is a registered trademark of BASF. Wing-P® contains Pendimethalin and Dimethenamid-P.