



**CONTROL OF
BROADLEAF WEEDS IN
WHEAT, BARLEY, & MAIZE.**



Formulation and use



Crops	Wheat, Barley & Maize
Composition	50 g/kg prosulfuron 500 g/kg dicamba
Use rate	0.35 - 0.45 kg/ha + 100 ml/ha COMPLEMENT SUPER
Formulation	Water-dispersible granules WG 55
Application timing	Early post-emergence of the crop. 2-6 leaf stage of the weeds (optimal 2-4 leaf stage)
Controlled weed spectrum	Broad-leaved perennial and annual weeds (not adequately controlled: grasses, Solanum nigrum, Mercurialis annua, Urtica urens, Fumaria officinalis, Veronica spp., Viola spp., Euphorbia spp.)



The Power of two Chemistries

	Dicamba	Prosulfuron
Contents (WG 55)	500 g/kg	50 g/kg
A.I. rate in 0,35-0,45 kg/ha	175-225 g/ha	17,5-22,5 g/ha
Chemical group	Benzoic acid	Sulfonylurea
Mode of action (HRAC)	Auxin, Group 4	Synthesis of branched amino acids, Group 2
Uptake	Shoot	Shoot (roots)
Target flora	Broad Leaf weeds	Broad Leaf weeds
Crop tolerance	< 20 °C restricted	No restriction

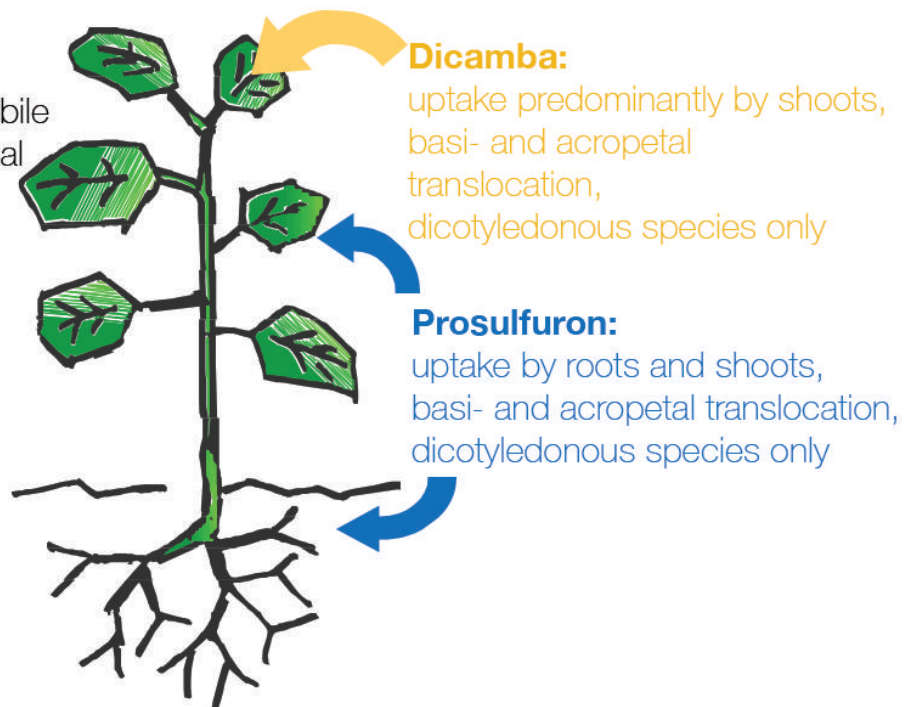


Two modes of action providing complementary control of a wide broadleaf weed spectrum.

Weeds controlled found in the Zambian R & D trials:

- *Amaranthus hybridus
- *Galinsoga paviflora
- *Nicandraphysolades
- *Riccardasp
- *Commelinabonghalensis
- *Bidens Pilosa
- *Conyza sp.

Casper[®] - Two phloem-mobile active ingredients for perennial weed control





MODE OF ACTION:

Prosulfuron belongs to the chemical family of the sulfonyleureas, and is an ALS inhibitor (inhibits plant cells division), blocking the growth of the weeds.

It is a systemic active substance which is absorbed by both the roots and the leaves.

It's residual efficacy could last for up to 4 weeks after application in humid conditions.



Combining these two active substances enables CASPER 55 WG to have a high level of efficacy on a very large spectrum of broadleaves, both annuals and perennials.

Dicamba belongs to the chemical family of the organochlorides (derivative of benzoic acid). Dicamba functions by increasing plant growth rate. At sufficient concentrations, the plant outgrows its nutrient supplies and dies. Dicamba is absorbed by the leaves and has a strong systemic activity.



The new Syngenta Dicot Specialist

Casper 55 WG, is a double mode of action post emergence herbicide which is specialized to control broad range of annual and perennial weeds on Corn and Cereals, which targets to ensure high yield and grain quality.

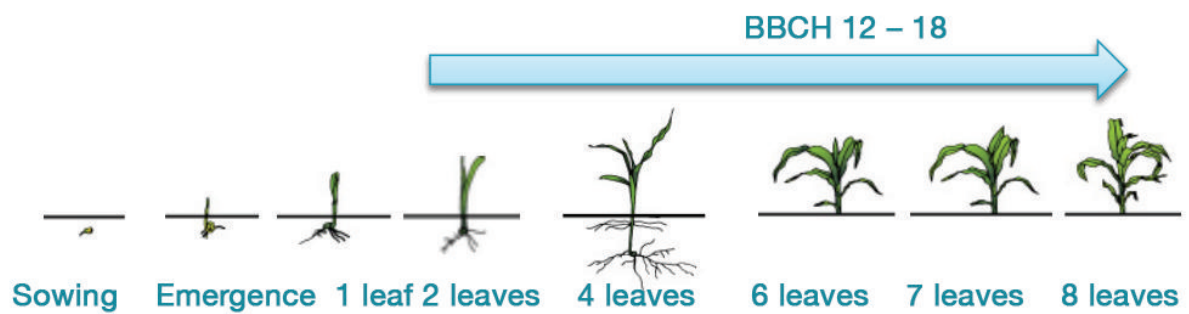
Key features

- *Dual mode of action
- *Systemic activity and uptake from both leaves and roots
- *Residual activity to control newly emerging weeds
- *Broad spectrum of most common annual and perennial dicots
- *Multi crop product (all cereals & corn)
- *No variety restrictions
- *Superior resistance management

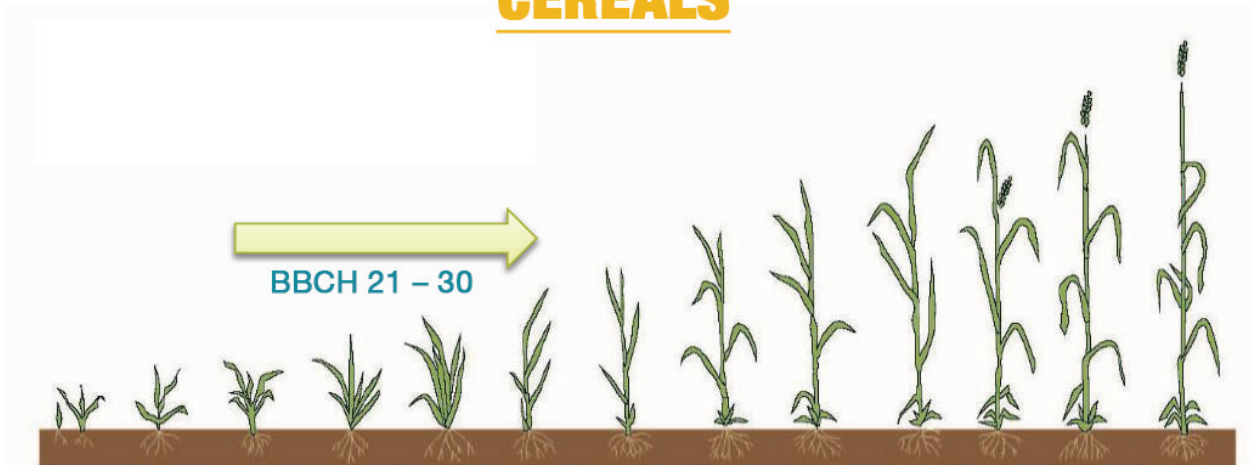
Features	Benefits
Broad dicot weed spectrum	One product, ease of use
Multi crop product (all cereals and corn)	Convenience (less product in storage) Optimization (economic)
No variety restrictions	Ease of use, no phyto risk
2 modes of action (MoA)	Reduced resistance risk, increased efficacy
Optimized formulation of 2 active ingredients (AI)	Quality, stability, proven weed control, less risk
Residual effect (if optimum humid in soil)	Control of newly emerging dicots long lasting weed management. CASPER will provide approximately 3 – 4 weeks control.
Tankmix compatibility	Easy to mix with grass or other dicots partners to further expand spectrum

Application Timings

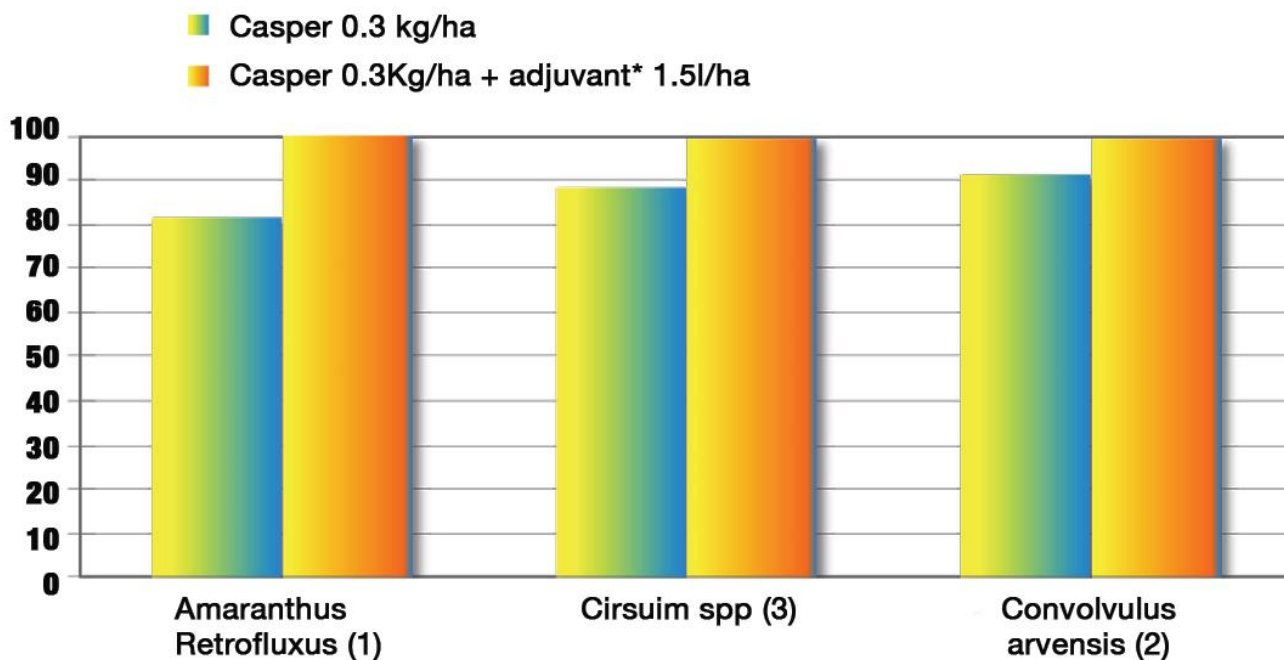
CORN



CEREALS



Wetting agents enhance reliability of control



Post-emergence application, maize BBCH (12-)14-16 □ 2020, n=4, Austria
 Mean values, evaluation 36-49 days after application
 * adjuvant Adigor® 90

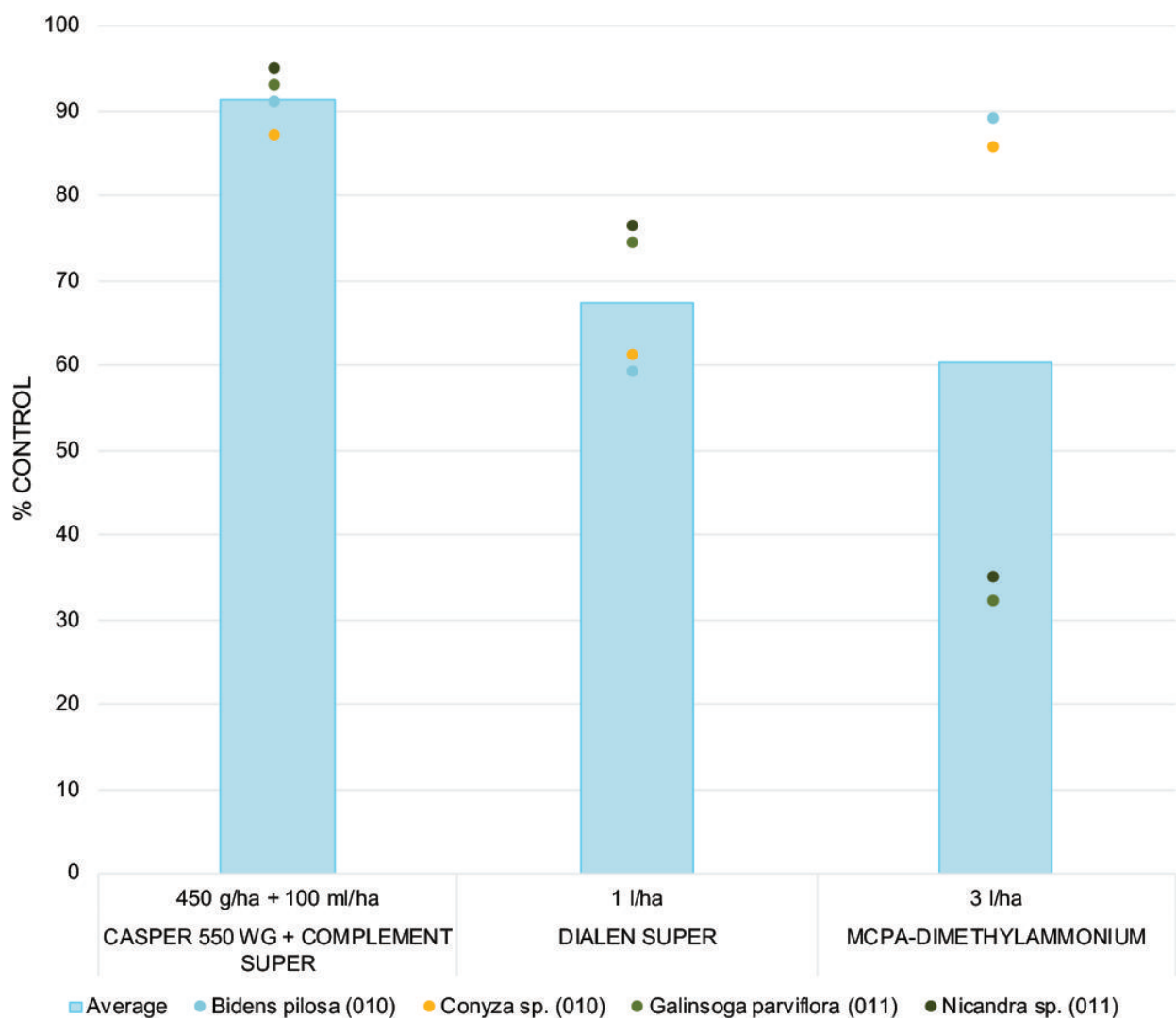
Zambia trial results on Wheat

Lusaka, 28 days after application



Zambia trial results on Wheat

% Control of Broadleaf weeds – Lusaka, 28 days after application



Zambia trial results on Maize

KAPILYOMBA SMALL FARM, 14 Days after application

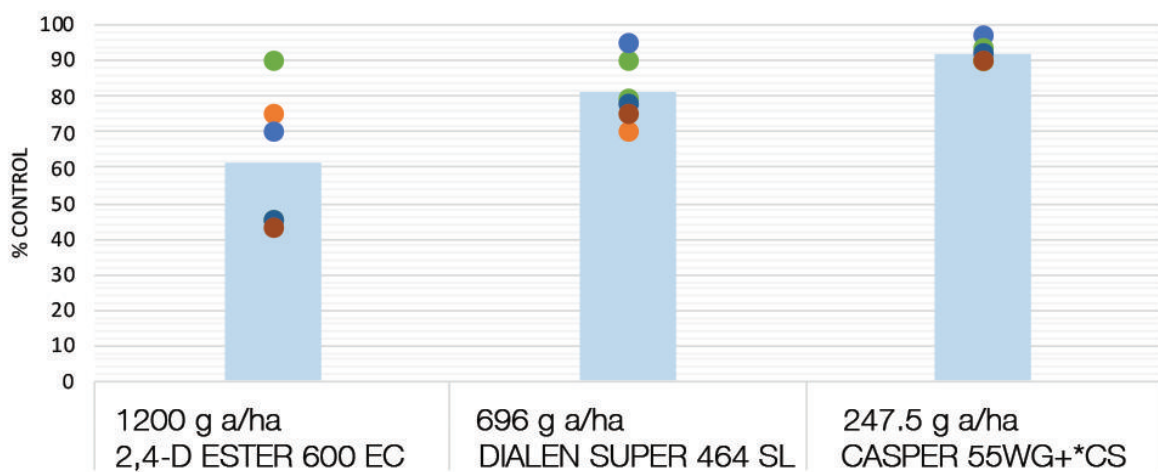
Untreated control



Casper 0.45kg/ha + Adjuvant



% Weed control of broadleaf weeds
KAPILYOMBA SMALL FARM, 28 Days after application



- Average
- Riccardia sp. ZM12
- Commelina benghalensis ZM11
- Richardia scabra ZM11
- Nicandra phzsalodes ZM12
- Amaranthus hzbridus ZM11
- Galinsonga parviflora ZM11

Restrictions and warnings

READ THE PRODUCT LABEL BEFORE USING CASPER FOR FULL DETAIL ON RESTRICTIONS AND WARNINGS

- Do not apply CASPER to crops that are stressed by severe weather conditions, drought, water logging, disease or insect damage.
- Do not apply CASPER together with organophosphate insecticides. If other organophosphate insecticides are used at planting, CASPER can only be applied a minimum of 20 days later.
- CASPER may lead to possible damage if applied to soils with pH (H₂O) of 7 and more, followed by heavy rain and/or cold shortly after application.
- Do not apply CASPER to inbred parent plants or experimental or newly released cultivars without first referring to the manufacturer or seed supplier.
- CASPER is recommended for use on soil with more than 20 % clay.
- To prevent damage, do not permit drift, vapour or spray mist to come into contact with sensitive broadleaf crops, fruit or ornamentals. Apply the product strictly in accordance with the application directions as indicated on the label.
- The efficacy of CASPER may be influenced by the quality of application water. Ammonium sulphate should be added at 1 ℓ /100 ℓ water in hard water (Ca²⁺ + Mg²⁺ >150 dpm).
- The application water in which CASPER is tank mixed should never be allowed to be below a pH of 6.
- Minimum Re-cropping intervals:

Crop	Recropping interval
Soyabean Sunflower Cowpeas	5months
All other crops	24 months

- Under conditions with frequent drought, high pH or low biological activity in the soil the intervals may have to extend.

Zambia label recommendation

Crop	Weeds	CASPER rate Kg/Ha	Pre-harvest interval (PHI)	Recommendations
WHEAT	Amaranthus hybridus Gallsonga parviflora Nicandra phyaolades Riccardia sp. Commelina benghalensis Bidens Pilosa Conyza sp.	0.35 to 0.45 kg/ha of CASPER + 100ml/ha complement Super	28 days	CASPER should always be mixed with COMPLEMENT SUPER Apply CASPER in at least 200ltr water/ha Application timing: early post-emergence of the WHEAT crop (approximately BBCH 20–32), and not later than 4 – 6 leaf stage of the weeds. CASPER will provide approximately 3 – 4 weeks control
BARLEY	Amaranthus hybridus Gallsonga parviflora Nicandra phyaolades Riccardia sp. Commelina benghalensis Bidens Pilosa Conyza sp.	0.35 to 0.45 kg/ha of CASPER + 100ml/ha complement Super	28 days	CASPER should always be mixed with COMPLEMENT SUPER Apply CASPER in at least 200ltr water/ha Application timing: early post-emergence of the BARLEY crop (approximately BBCH 20–32), and not later than 4 – 6 leaf stage of the weeds. CASPER will provide approximately 3 – 4 weeks control
MAIZE	Amaranthus hybridus Gallsonga parviflora Nicandra phyaolades Riccardia sp. Commelina benghalensis Bidens Pilosa Conyza sp.	0.35 to 0.45 kg/ha of CASPER + 100ml/ha complement Super	28 days	CASPER should always be mixed with COMPLEMENT SUPER Apply CASPER in at least 200ltr water/ha Application timing: early post-emergence of the MAIZE crop (approximately 2 weeks after emergence), and not later than 4 – 6 leaf stage of the weeds. CASPER will provide approximately 3 – 4 weeks control



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