

Buckler

A suspension concentrate formulation containing 600 g/l (51.84% w/w) chlorotoluron and 25 g/l (2.17% w/w) diflufenican.

A pre and post-emergence herbicide for the control of a range of broad-leaved weeds and Annual meadow grass in winter wheat and winter barley.

PRODUCT BENEFITS

- High diflufenican rate to maximise flexibility.
- Control of Annual meadow grass.
- Wide window of application.
- Can be used pre-crop emergence in winter wheat.
- Many broad-leaved weeds species controlled.

LERAP category: B

Pack size: : 10 litres

Storage: PROTECT FROM FROST



IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL HERBICIDE.

Crop	Maximum individual dose	Maximum number of treatments	Latest time of application
Winter wheat and winter barley	3.75 l/ha	One per crop	Before end of February

Other specific restriction:

- This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with the CRD published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

MAPP 13476

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

RESTRICTIONS

DO NOT apply if heavy rain is expected within four hours or if crop is stressed due to water logging, drought, nutrient deficiency, pest infestation etc.

DO NOT apply during prolonged periods of frosty weather and frost following application may cause crop damage.

DO NOT overlap of spray swaths.

Crops may suffer some transient damage such as bleaching. This is normally outgrown without affecting yield.

DO NOT roll autumn crops until spring. DO NOT treat undersown crops or those due to be undersown.

DO NOT direct drill autumn sown broad-leaved crops following the use of BUCKLER in the previous crop.

DO NOT apply BUCKLER on soils with organic matter content greater than 10% e.g. black fen and peat.

DO NOT roll crop during the seven days before or after application.

DO NOT apply BUCKLER on any varieties other than those listed.

Application to crops on stony or gravelly soils may cause damage, especially if heavy rain falls soon after application.

Early sown crops, e.g. September drilled, may be prone to damage should application precede or take place during a period of rapid growth in the autumn.

DO NOT harrow a treated crop as this may reduce the level of weed control.

Weed control may be reduced if a prolonged period of lower than average rainfall follows an application of BUCKLER.

Apply only to healthy crops, which are growing well.

WEEDS CONTROLLED

Strains of some annual grasses, e.g. Blackgrass, Wild oats and Italian ryegrass, have developed resistance to herbicides, which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. The Weed Resistance Action Group has produced guidelines and copies are available from the HGCA, CPA, your distributor, crop advisor or product manufacturer.

BUCKLER will not control spring germinating weeds. Rolling in autumn, after the application of BUCKLER will reduce the level of weed control. If rolling becomes necessary after application, this should be carried out in the spring. Speed of activity is dependent on temperature and growing conditions; activity can be slow under cool conditions. Moist soils at application are an advantage.

Good weed control depends on burying any trash before or during seedbed preparation. Loose and fluffy seedbeds should be rolled before application of BUCKLER. The final seed bed should be fine and firm and should not contain clods greater than fist size. The crop should be drilled to the normal depth of 2.5 cm. It is important to ensure that the seed is well covered. Where bulky 'organics' such as farmyard manure, slurry or shoddy are applied these should be mouldboard ploughed to a depth of at least 200 mm in the soil before spraying.

Good, even spray coverage of the soil is essential.

PRE-WEED EMERGENCE

Susceptible

Charlock	Meadow grass, annual	Speedwell, common field
Chickweed, common	Mouse ear, field	Speedwell, green field
Deadnettle, red	Pansy, field	Speedwell, grey field
Forget-me-not, field	Parsley-piert	Speedwell, ivy-leaved
Knotgrass	Pimpernel, scarlet	Spring beauty
Marigold, corn	Sandwort, thyme-leaved	Spurrey, corn
Mayweed, scentless		

POST-WEED EMERGENCE

Susceptible Application up to four expanded true leaves

Mayweed, scentless	Shepherd's purse	Speedwell, common field
Meadow grass, annual*		

*Up to early tillering stage.

Moderately susceptible Application up to two expanded true leaves

Charlock	Pansy, field	Speedwell, ivy-leaved
Deadnettle, red	Poppy, common field	

CROP SPECIFIC INFORMATION

Winter wheat and winter barley

Dose

3.75 l/ha.

Timing

Winter wheat: pre-emergence or post-emergence from one true leaf up to the end of February.

Do not apply pre-emergence to crops drilled after 30 November.

Winter barley: post-emergence from one true leaf up to the end of February.

For spring applications crops drilled before 31 January may be treated after they have reached the three leaf stage and before the end of tillering or the end of February, whichever is the earliest.

Maximum number of applications

One per crop.

Water volumes

200–400 litres of water per hectare.

Full list of winter cereal varieties that BUCKLER may be used on:

Winter wheat

Ambassador	Corinthian	Parade
Apollo	Fenman	Pastiche
Apostle	Gawain	Rapier
Avalon	Mercia	Rector
Brimstone	Mission	Stetson
Brock	Norman	Urban

Winter barley

Concert	Magie	Pirate
Gallon	Marinka	Plaisant
Halcyon	Mimosa	Sonata
Igri	Nevada	Torrent
Jennifer	Opera	Waverney
Kaskade	Panda	Vixen
Kira		

Following treatment, crops occasionally show transient discoloration on the leaves; this symptom is quickly outgrown and yield is not affected.

Please contact Nufarm or your distributor for an updated list of varieties.

Soil conditions

Prepare a firm fine seedbed for best results, with clods no more than fist size. The crop should be sown to the normal depth of 25 mm. It is important to ensure that the seed is well covered. Good weed control depends on burying and dispersing of any trash or burnt straw before or during seedbed preparation.

Loose or fluffy seed beds should be rolled before application of BUCKLER.

DO NOT use on sands (SOIL TEXTURE [85] SYSTEM) or very stony gravelly soils as there is a risk of crop damage. Alliance Pro should not be used on soils with an organic matter content over 10%.

In direct drilled crops the soil surface should be broken by surface cultivations before spraying and slots left by the drill closed.

For best results apply to a moist seedbed. Do not apply to dry, cracked or waterlogged soils.

Following crops

Plough to 150 mm before drilling or planting following crops. If a crop fails for any reason, only re-drill winter wheat and winter barley immediately or a period of 12 weeks must lapse after ploughing before spring varieties of spring wheat, spring barley, spring oilseed rape, peas, spring field beans, sugar beet, potatoes, carrots, edible brassicas or onions may be drilled.

Where BUCKLER or other products containing diflufenican are applied to successive cereal crops, levels of diflufenican will build up in the soil. Even where ploughing is carried out, there is still a risk of damage to following crops of onions, leeks and related species, or clover. As a precaution, users who rent out their land to growers of these crops should not use diflufenican containing products in successive years before renting out the land.

MIXING AND SPRAYING

Shake the container well before use. Half fill the spray tank with clean water, begin agitation and add the required amount of BUCKLER to the tank and complete filling. Continue agitation until spraying is completed. Do not leave the sprayer filled with the spray solution standing long periods. Wash out the sprayer thoroughly after use with water.

Apply via a horizontal boom sprayer using a MEDIUM spray (BCPC category). A spray pressure of at least two bars is advised.

COMPATIBILITY

Please consult your agronomist or Nufarm.

BUCKLER

A suspension concentrate containing 600 g/l chlorotoluron and 25 g/l diflufenican.



HARMFUL



DANGEROUS FOR THE ENVIRONMENT

MAY CAUSE SENSITISATION BY SKIN CONTACT.

LIMITED EVIDENCE OF A CARCINOGENIC EFFECT.

POSSIBLE RISK OF HARM TO THE UNBORN CHILD.

VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

KEEP OUT OF REACH OF CHILDREN.

THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.

USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

To avoid risks to man and the environment, comply with the instructions for use.

SAFETY PRECAUTIONS

Operator protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

AVOID ALL CONTACT BY MOUTH.

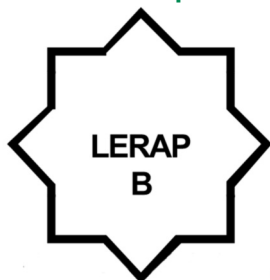
WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH CONCENTRATE from skin and eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after work.

DO NOT BREATHE SPRAY.

Environmental protection



Do not contaminate surface waters or ditches with chemical or used container.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within five metres of the top of the bank of a static or flowing waterbody, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within one metre of the top of a ditch which is dry at the time of application. Aim spray away from water.

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LERAP must be carried out in accordance with the CRD published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.

Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDSTUFFS.

KEEP OUT OF REACH OF CHILDREN.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to the sprayer at time of filling and dispose of the container safely.