TOWER®

PCS 05425

A herbicide for use against a range of broad-leaved weeds and certain grass weeds in winter and spring wheat, winter and spring barley, winter rye and winter triticale.

A suspension concentrate formulation containing 250 g/l (21.7% w/w) chlorotoluron, 40 g/l (3.5% w/w) diflufenican and 300 g/l (26.1% w/w) pendimethalin.

Contains pendimethalin and 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

**SAFETY INFORMATION**

**Warning**

Suspected of causing cancer.
Suspected of damaging the unborn child.
Very toxic to aquatic life with long lasting effects.
Contains pendimethalin and 1,2-benzisothiazol-3(2H)-one.
May produce an allergic reaction.
Keep out of reach of children.
Collect spillage.
Wear protective gloves.
Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed, empty containers which can be disposed of as non-hazardous waste.
To protect aquatic organisms respect an unsprayed buffer zone of 9 metres to surface water bodies.
To avoid risks to human health and the environment, comply with the instructions for use.

PCS 05425
SAFETY PRECAUTIONS

Operator Protection
WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate and when handling contaminated surfaces. TAKE OFF IMMEDIATELY all contaminated clothing. WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves. WASH HANDS AND EXPOSED SKIN before eating and drinking and after work. IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).

Environmental Protection
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

TOWER may be subject to reduced buffer zones using STRIPE - Surface water Tool for Reducing the Impact of Pesticides in the Environment. It is a legal requirement to maintain records and, to facilitate this, DAFM has produced an illustrative Plant Protection Product application record sheet for professional users.

Be aware that when using nozzles producing coarser droplet sizes in conjunction with low water volumes and reduced product application rates, the efficacy of some products may be reduced depending on the situation. Consult Adama Agricultural Solutions UK Ltd.

Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

Storage and Disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place. WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely. DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way.

IMPORTANT INFORMATION
FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops: Winter & spring wheat, winter & spring barley, winter rye and winter triticale.

Maximum individual dose (litres product/ha)
Maximum total dose (litres product/ha)
Maximum number of treatments (per crop)
Latest time of application
Aquatic buffer zone distance (metres)
Other specific restrictions

Full details are given in the information box within this leaflet.

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.
A herbicide for use against a range of broad-leaved weeds and certain grass weeds in winter and spring wheat, winter and spring barley, winter rye and winter triticale. A suspension concentrate formulation containing 250 g/l (21.7% w/w) chlorotoluron, 40 g/l (3.5% w/w) diflufenican and 300 g/l (26.1% w/w) pendimethalin. Contains pendimethalin and 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

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Collect spillage.
Wear protective gloves.
Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed, empty containers which can be disposed of as non-hazardous waste.
To protect aquatic organisms respect an unsprayed buffer zone of 9 metres to surface water bodies.
To avoid risks to human health and the environment, comply with the instructions for use.

PCS 05425
SAFETY PRECAUTIONS

Operator Protection
WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate and when handling contaminated surfaces. TAKE OFF IMMEDIATELY all contaminated clothing. WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves. WASH HANDS AND EXPOSED SKIN before eating and drinking and after work. IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).

Environmental Protection
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

Be aware that when using nozzles producing coarser droplet sizes in conjunction with low water volumes and reduced product application rates, the efficacy of some products may be reduced depending on the situation. Consult Adama Agricultural Solutions UK Ltd.

Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

Storage and Disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place. WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely. DO NOT RE-USE CONTAINER FOR ANY PURPOSE. THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way.

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IMPORTANT INFORMATION
FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL HERBICIDE

<table>
<thead>
<tr>
<th>Crop</th>
<th>Maximum individual dose (litres product/ha)</th>
<th>Maximum total dose (litres product/ha)</th>
<th>Maximum number of treatments (per crop)</th>
<th>Latest time of application</th>
<th>Aquatic buffer zone distance (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter wheat, winter barley, winter rye and winter triticale</td>
<td>2.0</td>
<td>2.0</td>
<td>1</td>
<td>Before pseudostem (leaf sheath) erect stage</td>
<td>9</td>
</tr>
<tr>
<td>Spring wheat and spring barley</td>
<td>2.0</td>
<td>2.0</td>
<td>1</td>
<td>Before pseudostem (leaf sheath) erect stage</td>
<td>9</td>
</tr>
</tbody>
</table>

Other specific restrictions:
This product must not be applied via hand-held equipment. Substances containing the chlorotoluron active agent may not be applied more than once per year on the same area.

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SAMPLE
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 OR WARNINGS

Do not use if it is frosty.

Apply to crops that are healthy and not suffering stress from effects such as frost damage, if it is very dry or waterlogged, or a lack of nutrients.

Avoid overlapping spray swaths as this may lead to crop damage and reduced yields in unfavourable conditions.

DO NOT apply to soils with greater than 10% organic matter.

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 the burying and dispersing of any trash or burnt straw before or during seedbed preparation.

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

Do not use on sands (Soil Texture 85 System) or very stony or gravelly soils due to risk of crop damage.

Do not allow spray drift onto neighbouring crops.

Crops should not be re-entered until spray residues are dry.

RESISTANCE MANAGEMENT

TOWER is a mixture product containing chlorotoluron, diflufenican and pendimethalin.

Chlorotoluron is classified as HRAC (Herbicide Resistance Action Committee) group C2 and belongs to the Urea chemical group. It inhibits photosynthesis at photosystem II (PS-II inhibitor), blocking the electron transport system and thereby prevents CO₂ fixation. It has known resistance concerns, particularly with difficult to control grass weeds such as blackgrass.

Diflufenican is classified as HRAC group F1 and belongs to the Pyridinecarboxamide chemical group. It causes bleaching by the inhibition of carotenoid biosynthesis at the phytoene desaturase step (PDS) resulting in chlorophyll and membrane lipid destruction and consequent death in sensitive weed species in a few weeks. The risk of resistance development in weeds to carotenoid biosynthesis inhibitors is relatively low.

Pendimethalin is classified as HRAC group K1 and belongs to the dinitroaniline chemical group. It binds to tubulin and consequently inhibits microtubule assembly in cell division. Pendimethalin has had some cases of resistance however, the cause of the resistance is not known.

TOWER is a mixture product containing three active ingredients from different chemical groups (as classified by HRAC). The active ingredients contained in TOWER have different modes of action which reduces the risk of weed resistance occurring for the product and will also help reduce the risk of resistance increasing in the future. It is important that TOWER is used as part of a resistance management programme and include the use of cultural control measures wherever possible (e.g. crop rotation, ploughing, stale seedbeds, delayed drilling, etc). Monitor fields regularly and investigate the reasons for any poor control.
WEEDS CONTROLLED

TOWER is a suspension concentrate formulation used as a herbicide against annual dicotyledonous weeds and grasses in winter and spring wheat, winter rye, winter and spring barley and winter triticale. It is absorbed by the roots, shoots and leaves. The soil should be moist at the time of application to give improved efficacy.

TOWER will control the following weeds up to the 2 leaf stage when applied early post-emergence to the crop:

**Susceptible**
- Annual meadowgrass
- Loose silky bent
- Cleavers
- Charlock
- Common chickweed
- Common fumitory
- Common poppy
- Cranesbill spp
- Dead-nettle spp
- Field pansy
- Field pennycress
- Forget-me-not
- Mayweed spp
- Runch
- Shepherd’s purse
- Speedwell spp
- Volunteer oilseed rape

**Moderately susceptible**
- Rough stalked meadowgrass

**Moderately resistant**
- Blackgrass

**Resistant**
- Perennial weeds
- Couch grass (Scutch)
- Wild oats

CROP SPECIFIC INFORMATION

**Timing**
Apply TOWER pre- or post-emergence up to before BBCH GS 30 (before leaf sheath erect stage) to winter wheat, winter barley, winter rye and winter triticale.

Apply TOWER pre- or post-emergence up to before BBCH GS 30 (before leaf sheath erect stage) to spring wheat and spring barley.

**RATE OF USE**
Apply TOWER at 2.0 L/ha in 150-300 L water/ha.

**FOLLOWING CROPS**
Following normal harvest, there are no restrictions. In the event of crop failure, plough before drilling the following crop in the spring. Only winter wheat can be re-drilled in the same autumn following crop failure.

Where diflufenican containing products are applied to successive cereal crops, levels of diflufenican will build up in the soil. Even with ploughing to 150 mm and thorough mixing of the soil, there may still be a risk of damage to following crops of onions, leeks, other allium crops and 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 that land.

**MIXING AND SPRAYING**

For use by tractor mounted/trailed sprayer only. Ensure the sprayer is clean and in good working order. Calibrate according to the sprayer manufacturers recommendations.

Half-fill the spray tank with clean water and begin agitation. Add the required quantity of TOWER to the tank and complete filling. Continue agitation until spraying is complete.

Do not leave the sprayer standing with the spray mixture in it for a long period of time.

Wash out the sprayer thoroughly after use, using a wetting agent or a proprietary tank cleaner.

Apply as a MEDIUM spray as defined by BCPC. Use a water volume of 150-300 L/ha.

On emptying the container, RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely.
DISCLAIMER/CONDITIONS OF SUPPLY
The specified properties of our products and the mode of application stated on this label have been established on the basis of research and experience. Products conform to specification at the time of delivery but, as we exercise no control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application, all of which may affect the performance of the products, no responsibility or liability will be accepted by us or our re-sellers for any failure in performance, damage or injury to person or property whatsoever arising from the storage, handling, application or use of the products. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in or make recommendations concerning the use of such products. We recommend you contact your dealer to request advice on the suitability of this product for any new and/or unusual growing methods or for new varieties not listed on this label.

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