



# NATIONAL™

GROUP 3 HERBICIDE



## ADAMA

### MAPP 17094

A herbicide for the control of many annual grasses and broad-leaved weeds in a wide range of crops.

A suspension concentrate formulation containing 400 g/l (36% w/w) pendimethalin.

Contains pendimethalin. May produce an allergic reaction.



Scan for Safety Data Sheet or use weblink:  
<http://goo.gl/N3tGcF>

FR R3.0.3 APR21



### Warning

**Very toxic to aquatic life with long lasting effects.**

**Contains pendimethalin. May produce an allergic reaction.**

Keep out of reach of children.

Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty, clean containers which can be disposed of as non-hazardous waste.

**To avoid risks to human health and the environment, comply with the instructions for use.**

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# NATIONAL™

## MAPP 17094

### SHAKE WELL BEFORE USE

#### DIRECTIONS FOR USE:

full instructions in this leaflet.

Batch No.: see packaging

**Marketed by: Masstock Arable (UK) Ltd**

Andoversford, Cheltenham, Gloucestershire GL54 4LZ Telephone: 01242 821100

**Authorisation Holder: Adama Agricultural Solutions UK Ltd**

Third Floor East, 1410 Arlington Business Park, Theale, Reading RG7 4SA

**For advice on medical emergencies, fires or major spills telephone the National Chemical Emergency Centre on 01865 407333**

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

OPEN HERE ►

## 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 GLOVES** when handling the concentrate or contaminated surfaces.

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

**WASH ALL PROTECTIVE CLOTHING** thoroughly after use, especially the insides of gloves.

**WASH HANDS AND EXPOSED SKIN** before meals and after work.

### 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.

To protect aquatic organisms respect an unsprayed buffer zone distance to surface water bodies in line with LERAP requirements.

**DO NOT ALLOW DIRECT SPRAY** from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This product qualifies for inclusion within the Local Environment 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 'Local Environment Risk Assessment for Pesticides Horizontal Boom Sprayers' booklet available from the HSE Chemicals Regulation Division's website or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

### Storage and Disposal

Keep out of reach of children. Keep away from food, drink and animal feedingsuffs. Keep in original container, tightly closed, in a safe place. Wash out container thoroughly, empty washings into spray tank and dispose of safely.

## IMPORTANT INFORMATION

**FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE**

**Crops:** Winter wheat, winter barley, durum wheat, triticale, winter rye, spring barley, potato, combining pea, sunflower, forage and grain maize, forage and grain maize (grown under temporary plastic mulch), bulb onion (spring and autumn, drilled and transplanted), leek (drilled crops only), carrot and parsnip (drilled crops only), broccoli, Brussels sprout, cabbage, cauliflower, calabrese, blackcurrant, redcurrant, gooseberry, apple, cherry, pear, plum, raspberry, blackberry, loganberry, *Rubus* hybrids and strawberries.

**Maximum individual dose (L product/ha)**

**Maximum total dose (L product/ha)**

**Latest time of application**

**Other specific restrictions**

Full details are given in the information box within the attached 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.**

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## **This leaflet is part of the approved label.**

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the National Chemical Emergency Centre on 01865 407333

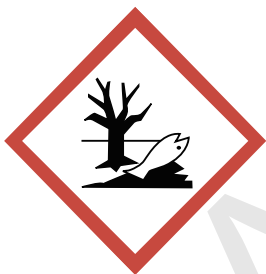
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### **A herbicide for the control of many annual grasses and broad-leaved weeds in a wide range of crops.**

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## IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Crop	Maximum individual dose (L product/ha)	Maximum total dose (L product/ha)	Latest time of application
Winter wheat, winter barley, durum wheat, triticale and winter rye	3.3	3.3 per crop	Before leaf sheath erect stage
Spring barley	3.3	3.3 per crop	Before leaf sheath erect stage
Potato, combining pea and sunflower	3.3	3.3 per crop	Pre-emergence
Forage and grain maize	3.75	3.75 per crop	Before 4th leaf stage
Forage and grain maize (grown under temporary plastic mulch)	3.75	3.75 per crop	Pre-emergence
Bulb onion (spring and autumn, drilled and transplanted), leek (drilled crops only)	3.3	3.3 per crop	Pre-emergence
Carrot and parsnip (drilled crops only)	3.3	3.3 per crop	Pre-emergence
Broccoli, Brussels sprout, cabbage, cauliflower, calabrese	3.3	3.3 per crop	Before transplanting
Blackcurrant, redcurrant, gooseberry	3.3	3.3 per year	Before bud burst
Apple, cherry, pear, plum	3.3	3.3 per year	Before bud burst
Raspberry, blackberry, loganberry, <i>Rubus</i> hybrids	3.3	3.3 per year	After harvest but before bud burst
Strawberries	3.3	3.3 per year	Before flower truss emergence

**Other specific restrictions:**

This product must not be applied by hand-held equipment.

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# SAFETY PRECAUTIONS

## Operator Protection

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WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS AND EXPOSED SKIN before meals and after work.

## Environmental Protection

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To protect aquatic organisms respect an unsprayed buffer zone distance to surface water bodies in line with LERAP requirements.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water.



This product qualifies for inclusion within the Local Environment 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 'Local Environment Risk Assessment for Pesticides Horizontal Boom Sprayers' booklet available from the HSE Chemicals Regulation Division's website or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

## Storage and Disposal

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Keep in original container, tightly closed, in a safe place.

Wash out container thoroughly, empty washings into spray tank and dispose of safely.

# 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.

CLEANCROP® NATIONAL™ is recommended for control of various annual grass and broad-leaved weeds in winter wheat, winter and spring barley, durum wheat, triticale, winter rye, potato, combining pea, sunflower, forage and grain maize, bulb onion (spring and autumn, drilled and transplanted), leek (drilled crops only), carrot (drilled crops only), parsnip (drilled crops only), transplanted brassica, blackcurrant, redcurrant, gooseberry, apple, cherry, pear, plum, strawberry, raspberry, blackberry, loganberry and *Rubus* hybrids.

CLEANCROP NATIONAL is recommended for pre-emergence control of weeds. Applications must be made before weeds emerge to soils which are fine, firm and moist at the time of application.

## RESTRICTIONS OR WARNINGS

### Crop Cautions

Avoid spray drift onto neighbouring crops.

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

Do not treat shallow drilled crops.

Apply when rain is not expected within 6 hours of application as weed control may be reduced.

On peas, apply as soon as possible after sowing. Ensure seed is covered by a minimum of 25 mm of settled soil. Do not apply alone after end of March. If the plumule is less than 13mm from the soil surface do not apply.

On potatoes, apply as soon as possible after planting and ridging up, and at least 7 days before emergence. Before application loose ridges must be given time to settle. Slight discoloration and distortion of the initial shoots may occur if heavy rain falls after application but before emergence, particularly on very light soils. Any damage to early shoots is normally quickly outgrown.

On sunflowers, ensure seed is covered by at least 25 mm of settled soil before application. Apply before the crop and weed emerge.

On maize, some crown root development problems may occur which has no effect on yield. Ensure seed is covered by 50mm soil before application.

Bulb onion and leek, do not apply when heavy rain is expected. Do not apply if grown on sandy (CS, S, FS, LCS) very light soils (LS, LFS, CSL), fen soils, or those containing more than 10% organic matter as weed control may be reduced and crop damage may be observed.

On transplanted brassicas, do not apply post-planting. Ensure soil is moist to increase weed control – irrigation may be required.

Seed should be covered by a minimum of 32 mm of settled soil (25mm for peas and sunflowers).

Do not apply to protected crops.

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

### **Soil Conditions**

Ensure soils are moist at time of application.

Apply to a firm, fine seedbed, free of clods. Any loose or cloddy soils must be consolidated prior to application.

Do not use on stony or gravelly soils.

Do not use on waterlogged soils, or those prone to waterlogging.

Do not incorporate or disturb soil surface after application.

Do not use on soils with more than 10% organic matter.

Ensure crops are not under stress at time of application.

Do not treat under-sown crops or those to be under-sown.

Ensure seed is well covered before application.

Residual control may be reduced under prolonged dry conditions, on soils with a high Kd factor, where organic matter exceeds 6% or where ash content is high.

### **Processed Crops**

Consult processors before use on crops intended for processing.

### **Resistance**

Strains of some 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. Guidelines have been produced by the Weed Resistance Action Group (WRAG) and copies are available from HGCA, CPA, your distributor, crop advisor or product manufacturer.

Always follow WRAG guidelines for preventing and managing herbicide resistant weeds.

Maximise the use of cultural control measures wherever possible (e.g. crop rotation, ploughing, stale seedbeds, delayed drilling, etc).

Use tank-mixes or sequences of herbicides with different modes of action within individual crops or successive crops.

Apply pre-emergence wherever possible. Apply any post-emergence products/mixtures to small, actively growing weeds, especially where high levels of resistance are suspected and to reduce the risk of resistance development.

Monitor fields regularly and investigate the reasons for any poor control.

### **WEED CONTROL AND CROP SPECIFIC INFORMATION**

#### **Winter wheat, winter barley, winter rye, durum wheat and triticale**

CLEANCROP NATIONAL can be safely used on all varieties of these crops. The recommended time of application is pre-emergence up until before the crop reaches leaf-sheath erect stage, but before weed emergence.

Rate of use:

3.3 L/ha

## Weed Control

### Susceptible – 3.3 L/ha

# These weeds are susceptible at a reduced rate of 2.5 L/ha

Annual meadowgrass #	Mayweeds
Common chickweed #	Parsley-piert #
Common orache	Red dead-nettle #
Common poppy	Scarlet pimpernel #
Corn marigold #	Shepherd's purse
Fat-hen	Small nettle
Field forget-me-not	Smooth sowthistle
Field pansy	Speedwell #
Hemp-nettle #	Volunteer oilseed
Henbit dead-nettle #	rape # <sup>§</sup>
Knotgrass	

### Moderately Susceptible – 3.3 L/ha

Common fumitory

<sup>§</sup> Deep germinating volunteer oilseed rape may not be controlled.

## Spring Crops

CLEANCROP NATIONAL can be safely used on all varieties of spring barley, potatoes, combining peas, sunflowers, carrots and parsnips (drilled only), transplanted brassicas, bulb onions (spring and autumn drilled and transplanted), leeks (drilled crop only) and forage and grain maize.

The recommended timing of application is pre-emergence of the crop and weed except for forage and grain maize not grown under temporary plastic mulches where it can be applied pre- and post-emergence of the crop up to the 4 leaf stage. The recommended timing of application on spring barley is pre- and post-emergence of the crop and pre-emergence of the weed.

Rate of use: 3.3 L/ha for spring barley, potatoes, combining peas, sunflower, carrot, parsnip, bulb onion, leeks and transplanted brassicas.

## Weed Control

### Susceptible – 3.3 L/ha

Annual meadowgrass	Henbit dead-nettle
Common chickweed	Knotgrass
Common orache	Parsley-piert
Common poppy	Red dead-nettle
Corn marigold	Scarlet pimpernel
Fat-hen	Small nettle
Field forget-me-not	Smooth sowthistle
Field pansy	Speedwell spp
Hemp-nettle	

### Moderately Susceptible – 3.3 L/ha

Common fumitory  
Mayweed spp  
Volunteer oilseed rape<sup>§</sup>

<sup>§</sup> Deep germinating volunteer oilseed rape may not be controlled.

## Forage Maize and Grain Maize

Rate of use: 3.75 L/ha

Forage and grain maize grown under temporary plastic mulches:

Apply to the forage and grain maize pre-emergence of the crop and before the temporary plastic mulch is put in place.

Forage and grain maize NOT grown under temporary plastic mulches: Apply from pre-emergence of the crop up to before the 4 leaf stage of the crop.

## Weed Control

### Susceptible – 3.75 L/ha

Annual meadowgrass	Hemp-nettle
Black nightshade	Henbit dead-nettle
Common chickweed	Knotgrass
Common orache	Parsley-piert
Common poppy	Red dead-nettle
Corn marigold	Scarlet pimpernel
Fat-hen	Small nettle
Field forget-me-not	Smooth sowthistle
Field pansy	Speedwell spp

## **Strawberries, Bush Fruit, Cane Fruit, Top Fruit**

Rate of use: apply 3.3 L/ha.

### **Weed Control**

Susceptible – 3.3 L/ha

Annual meadowgrass	Henbit dead-nettle
Common chickweed	Knotgrass
Common fumitory <sup>o</sup>	Parsley-piert
Cleavers <sup>o</sup>	Red dead-nettle
Common orache	Scarlet pimpernel
Common poppy	Small nettle
Corn marigold	Smooth sowthistle
Fat-hen	Speedwell spp
Field forget-me-not	Volunteer oilseed rape <sup>§</sup>
Field pansy	Mayweed spp <sup>o</sup>
Hemp-nettle	

<sup>o</sup> Control is less reliable following application in the spring.

<sup>§</sup> Deep germinating volunteer oilseed rape may not be controlled.

## **SPRING CROP SPECIFIC RECOMMENDATIONS**

### **Strawberry**

On maiden beds apply to dormant newly planted runners, before weed emergence. Do not use before planting. Do not apply before October to beds newly planted with cold stored runners or beds newly planted in late summer. Ensure any runners' roots are well covered with soil. Ensure plants are free of stress. Application is generally autumn or early spring immediately after planting. If conditions are not favourable, delay application until plants are established. In such cases there may be some transient damage, but this is normally quickly outgrown.

On established beds apply CLEANCROP NATIONAL during the dormant period, normally autumn to early spring. Do not apply during the flower initiation period (immediately post-harvest to mid-September). If application of CLEANCROP NATIONAL is delayed until flower initiation some transient damage and yield-loss may be seen.

### **Bush Fruit – Blackcurrants, Redcurrants and Gooseberries**

Apply CLEANCROP NATIONAL during the dormant period to weed free soil, generally between autumn and early spring, as directed or overall spray. Do not use in the same season as planting.

## **Cane Fruit – Blackberry, Raspberry, Loganberry and *Rubus hybrids***

Apply CLEANCROP NATIONAL from autumn to early spring before weeds emerge. Do not apply after end of March as weed control may be reduced if soil moisture is low.

Do not use on autumn fruiting raspberries.

On established crops apply as soon as the canes have been cut out but before bud burst.

On new crops apply immediately after planting. Ensure roots are well covered with soil, carry out a light ridding if there is any doubt. Apply before new cane emergence.

### **Top Fruit – Apple, Pear, Cherry and Plum**

Apply from autumn to early spring to weed free soils. Only use after end of March if there is adequate soil moisture, otherwise weed control will be reduced.

### **Carrots and Parsnips (drilled), Bulb Onions (spring and autumn, drilled and transplanted) and Leeks (drilled crops only)**

Apply as soon as possible after drilling before crop or weed emergence.

For carrots and parsnips apply CLEANCROP NATIONAL at 3.3 L/ha.

On transplanted onions apply pre-planting; to a weed free soil at 3.3 L/ha. When transplanting take care not to introduce treated soil into the root zone.

Ensure seed is covered by at least 25 mm of settled soil.

### **Transplanted Brassicas – Broccoli, Brussels sprouts, Calabrese, Cabbage and Cauliflower**

Apply at a rate of 3.3 L/ha after final plant bed preparation but before transplanting.

Do not incorporate and avoid unnecessary soil disturbance after application. Care must be taken not to introduce treated soil into the root zone.

Ensure soil is moist to avoid reduced weed control - irrigation may be required.



## **FOLLOWING CROPS**

In the event of crop failure, mouldboard plough to a depth of at least 15 cm to ensure any residues are dispersed. The following crops may be drilled after a minimum of 5 months have lapsed following an autumn application.

Spring wheat and barley

Spring field, broad and dwarf beans

Peas

Maize

Brassicas – Brussels sprouts, cabbage, calabrese,

cauliflower, turnip,

Linseed

Carrot and parsnip

For spring and early summer applications the above crops, except spring wheat, spring barley and forage maize may be drilled after a minimum of 2 months have elapsed. After 5 months, any crop except beet and spinach may be drilled. Sugar beet, red beet and spinach can be drilled after a minimum of 12 months have elapsed.

## **MIXING AND SPRAYING**

For use by conventional field sprayers only.

### **Water volume**

Apply CLEANCROP NATIONAL in 100 to 200 L/ha water.

A minimum of 200 L/ha water should be used for applications on potatoes.

Apply as a FINE or MEDIUM (BCPC definition) quality spray.

### **Mixing**

Half-fill the spray tank with water, add the required quantity of CLEANCROP NATIONAL and begin agitation. Add the remainder of the water and continue agitation during spraying.

CLEANCROP NATIONAL will stain clothes if splashed onto them. Wash all clothing immediately to minimise stain damage.

## **Spray tank cleaning**

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.

Hose down machinery immediately after use with a spray tank cleaner.

Thoroughly wash all spraying equipment and measuring equipment with water immediately after use.

## **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.

### **Marketed by:**

Masstock Arable (UK) Ltd  
Andoversford, Cheltenham, Gloucestershire GL54 4LZ  
Telephone: 01242 821100

### **Authorisation holder:**

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