

Petrichor

(MAPP 19844)

A water dispersible granule formulation containing 70% w/w metribuzin

Petrichor is a contact and residual herbicide for use pre-emergence in early potatoes and pre and post-emergence in maincrop potatoes for the control of specified weeds.

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

Contents: X kg e

Batch number:00000

Authorisation holder/Marketing Company: YC Agro Limited, York Eco Business Centre (Office 12), Amy Johnson Way, York, England, YO30 4AG. UK Tel: 44 (0) 79 3743 0434 (24hr Emergency contact number), Email: director@ycagro.com Website: www.ycagro.com

Petrichor (MAPP 19844)

A water dispersible granule formulation containing 70% w/w metribuzin.



Warning

Very toxic to aquatic life with long lasting effects

Keep out of reach of children.

Collect spillage.

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

Contains disodium maleate. May produce an allergic reaction

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

IMPORTANT INFORMATION
FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crop	Maximum individual dose (kg product/ha)	Maximum total dose (kg product/ha/crop)	Latest time of application	Aquatic buffer zone distance (m)
Potato (earlies)	0.75	0.75	Pre-emergence	5
Potato (main crop)	0.75 pre-emergence AND/OR 0.5 post-emergence	1.25 (maximum 0.5kg/ha applied post-emergence)	Before the shoots of potatoes reach 15cm in length	5

Other specific restrictions:

1. A minimum interval of 21 days must be observed between applications.
2. A maximum total dose of 0.35kg as/ha/season (0.50kg Petrichor/ha/season) may be applied post-emergence of the crop.

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.

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 AND SUITABLE RESPIRATORY PROTECTIVE EQUIPMENT* when handling this product.

*Disposable filtering facepiece respirator to at least EN149 FFP3 or equivalent.

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.

WASH CONCENTRATE from skin or eyes immediately.

DO NOT BREATHE SPRAY.

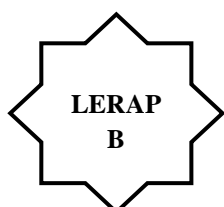
WHEN USING DO NOT EAT DRINK OR SMOKE.

Wash all protective clothing after use.

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 to surface water bodies in line with LERAP requirements. **DO NOT ALLOW DIRECT SPRAY** from horizontal boom sprayers to fall within 5 metres of the top of the bank of a static or flowing water body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 metre 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 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 HSE's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

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.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

EMPTY CONTAINER COMPLETELY and dispose of safely.

DIRECTIONS FOR USE

IMPORTANT: This information is authorised 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.

Petrichor is a contact and residual herbicide for use pre-emergence in early potatoes and pre and/or post-emergence in maincrop potatoes for the control of specified weeds. Note that if a previously applied residual herbicide is still present in the soil then Petrichor should not be used, this is particularly important in organic soils.

Caution: not all potato varieties can be treated with Petrichor. See Crop Specific Information.

RESTRICTIONS

Do not apply to crops that are under stress from disease or nutrient deficiency.

Do not apply to crops that are waterlogged, cold or being grown in acidic conditions.

Avoid drift as PETRICHOR may damage sensitive crops especially sugar beet, brassicas and lettuce.

Avoid spray overlap, as crop damage that cannot be outgrown may occur.

Soil condition and types

Do not use on sands.

Maris Piper: on very light soils do not use Petrichor on Maris Piper pre-emergence and do not use on this variety post-emergence.

Plant tubers in clod-free, moist beds with well-rounded ridges and good tilth. No further improvements to soil tilth should be needed after planting. Weed germination will increase with additional cultivations and the effectiveness of Petrichor will be reduced.

Dry conditions may decrease the effectiveness of Petrichor so ensure the soil is moist when spraying.

Organic and peaty soils and mineral soils high in organic matter may reduce the residual activity of Petrichor.

Weather

Foliage may yellow following treatment with Petrichor, this occurs more frequently where spraying takes place less than 3 days after cool cloudy weather and particularly if there is a sudden change to sunny, hot conditions when spraying. This yellowing should be outgrown.

During periods of high intensity sunlight and high daytime temperatures it is preferable to carry out spray operations in the evening.

Note damage may occur to crops on stony or gravelly soils especially if rainfall is heavy soon after application.

FOLLOWING CROPS

Before drilling or planting a following crop, the soil must be mould-board ploughed to at least 15cm depth. Ploughing is recommended as soon as possible after lifting and must be before the end of December.

The following intervals **MUST** be observed between application of Petrichor and drilling or planting the following crops:

- Cereals, ryegrass, winter beans: 16 weeks
- All crops except lettuce and radish: the following spring
- Lettuce and radish: these crops should NOT be grown in the year after Petrichor treatment.

In the event of crop failure due to poor growing conditions contact YC Agro Limited.

WEEDS CONTROLLED

Refer to the weed susceptibility table and Specific Weed Situation section.

Note: Perennial broad-leaved weeds and grasses are not controlled by Petrichor

S = susceptible MS = moderately susceptible R= resistance - = insufficient information

*Post-emergence weed control up to 1 expanded true leaf is listed in the table, however most annual broad-leaved weeds will be controlled beyond this stage.

Species	Pre-emergence	*Post-emergence 0.35-0.5 kg product/ha
Annual meadow grass	S	S
Black-bindweed	MS	S
Blackgrass	S	MS
Black nightshade	R	MS
Bugloss	S	S
Charlock	S	S
Cleavers	R	R
Common chickweed	S	S
Common fumitory	S	S
Common orache	S	S
Common poppy	S	S
Corn marigold	-	MS
Corn spurrey	S	S
Fat-hen	S	S
Field forget-me-not	S	S
Field pansy	S	MS
Field penny-cress	S	S
Groundsel	S	S
Henbit dead-nettle	S	S
Hemp-nettle	S	-
Knotgrass	S	MS
Mayweed spp.	S	S
Pale persicaria	S	S
Red dead-nettle	S	S
Redshank	S	S
Scarlet pimpernel	S	S
Shepherd's-purse	S	S
Small nettle	S	S
Speedwell spp.	S	S
Sun spurge	S	-
Volunteer oilseed rape	S	S
Wild radish	S	S

Specific weed situations

Early germinating weeds

Apply Petrichor between the cotyledon to one true leaf stage for best control.

For best control of black-bindweed apply at the cotyledon to 2 true leaf stage. It has less sensitivity to pre-emergence treatments.

Late germinating weeds, including black-bindweed

A post-emergence maximum application of 0.5 kg/Petrichor/ha may be made to listed main crop varieties before leading shoots reach 15cm. Black bindweed efficacy is improved with post-emergence applications of Petrichor.

Perennial grass

If the potato crop follows grass, then use either a suitable herbicide and/or cultivations to kill the sward in the autumn. Petrichor can then be used to control following weeds post-emergence on recommended maincrop varieties. Petrichor will suppress common couch where applied post-emergence up to the 2 leaf stage.

RESISTANCE

Petrichor contains metribuzin a triazone belonging to the HRAC/WSSA 5. Always follow WRAG guidelines for preventing and managing herbicide resistant weeds. Maximise the use of cultural control measures wherever possible (eg crop rotation, ploughing, stale seedbeds, delayed planting etc). Do not rely on one mode of action within individual crops, use in a programme with different modes of action.

Copies of the guidelines may be obtained from the CPA, your distributor, crop advisor or product manufacturer.

CROP SPECIFIC INFORMATION

Potato Varieties

Caution: not all potato varieties can be treated with Petrichor. Listed below are varieties that can be treated:

First earlies: pre-emergence	Second earlies: pre-emergence	Maincrop: pre-emergence	Maincrop: pre-emergence and post-emergence
Alcmaria, Arran Comet, Ostara, Maris Bard, Pentland Javelin, Ulster Sceptre, Orla	Ausonia, Estima, Marfona, Maris Peer, Nadine, Wilja	Maris Piper*, Asterix, Markies, Mayan Gold, Melody, Rooster, Shannon, Vales Sovereign	Cara, Desiree, King Edward, Kingston, Pentland Crown, Pentland Dell, Pentland Squire, Record, Romano, Claret, Isle of Jura, Vales Everest, Vivaldi.

*Except on sands or very light soils

APPLICATION

Traditional Method

For overall application (not incorporated) to recommended earlies varieties pre-emergence and/or pre- or post-emergence to recommended maincrop varieties. Note that weed control, persistence and residual activity may be less than stated for earlies grown on all soil types except light and very light soils and maincrops grown on all soil types. DO NOT use Petrichor on potatoes grown in sandy soils.

Pre-crop emergence applications (Soil classification ADAS 85 system)

Earlies (first and second) grown on very light, light, medium and heavy soils apply 0.75 kg product/ha.

Second earlies grow on peaty and organic soils apply 0.75kg/product/ha.

Maincrop grown on very light, light, medium, heavy, peaty and organic soils apply 0.75 kg product/ha.

Post-crop emergence applications

Do not use PETRICHOR on potatoes grown in sandy soils.

Listed maincrop varieties grown on any soil apply at 0.35 kg product/ha or 0.5kg product/ha in line with specific timings and application methods below.

Water volumes: Apply in a minimum of 200 L water/ha using a MEDIUM quality spray (as defined by BCPC). Where the soil is cloddy, it is advisable to increase the volume of water. For post-emergence application use a minimum of 130L water/ha using a FINE quality spray (as defined by BCPC).

Method: DO NOT apply Petrichor in windy conditions. Using filters at least size 80 mesh is advised, filters finer than this should not be used. When applying pre- or post-emergence to the soil surface it is important to ensure both sides of the ridge are covered evenly.

Particular care is advised for post-emergence applications when the crop is sheltering the weeds –it is essential the spray penetrates the canopy.

Soil Incorporation Method

Where soils have a greater than 10% organic matter content and in dry conditions on mineral soils, Petrichor should be incorporated at a rate of 0.75 kg product/ha into the top 10-15cm of soil during the final cultivation. This will increase activity and is particularly useful for varieties that cannot be treated post-emergence.

Pre-planting: Where soils have greater than 10% organic matter and in dry conditions on mineral soils, Petrichor should be incorporated at a rate of 0.75 kg product/ha into the top 10-15cm of soil during the final cultivation. Rotary harrows, rotary cultivators or spring tine harrows are suitable cultivators. A granular nematicide could be incorporated into the soil at the same time in accordance with the manufacturer's recommendations. Ridging up should take place as soon as possible after planting. It is important that untreated soil is not incorporated into the ridges as this would allow weeds to establish. Before the crop meets the rows a final ridging up may be made.

For the recommended maincrop potato varieties that are grown in two-row beds only, a follow-up post-emergence treatment of up to 0.5 kg product/ha may be applied. This will control any late germinating weeds in the furrows.

Post-planting: Place tubers in shallow ridges and apply 0.75 kg/ha of Petrichor. Incorporate before the crop emerges by cultivating shallowly and ridging up at the same time, suitable ridging bodies should be fitted to the cultivator. With second early varieties only make the application where soils contain more than 10% organic matter.

To control later germinating weeds a further application of Petrichor of 0.5 kg/ha will be required. The second application can be applied post-emergence before leading shoots of the potatoes are 15cm long.

Post-emergence applications: Only apply Petrichor post-emergence to recommended varieties and only until the weeds reach the cotyledon stage. Control may be reduced where weeds are past this stage.

Apply Petrichor once at 0.35-0.5 kg/ha on recommended varieties only at or before early cotyledon stage of the weeds until the most advanced shoots of the crop are 15cm long. Petrichor should **only** be used pre-emergence on crops destined for use as seed.

Temporary plastic mulches: Early potatoes may be treated with Petrichor using the Traditional Method and covered with plastic mulches. It is important that crops are well irrigated before the plastic mulch is applied, as effective weed control relies on soil moisture. Apply to well-prepared, clod-free ridges. Note where Petrichor is applied using this method on mineral soils with high organic matter content – resulting weed control may be inadequate.

MIXING AND SPRAYING

For use by tractor mounted/trailed sprayer only. Before use ensure that all application equipment and filters are clean. Add half the required volume of water and start agitation, add the required quantity of Petrichor. Empty containers should be rinsed thoroughly by using an integrated pressure rinsing device or manually rinsing three times. Add the washings to sprayer at the time of filling, through the filter basket, and dispose of the container safely

Fill the tank to the required volume whilst maintaining agitation. Continuous agitation must be maintained until spraying is complete. Dilute solutions should be used immediately. All application equipment must be thoroughly cleaned using a recognised decontaminant after spraying.

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

DISCLAIMERS

Trademark statements

The Safety Data Sheet does not form part of the approved label.