# azoshy

A suspension concentrate formulation containing 250 g/l (22.69% w/w) azoxystrobin.
A broad spectrum fungicide for wheat, barley, oats, rye, triticale, combining and vining peas, oilseed rape, bulb onions, leeks, carrots, asparagus (outdoor), field beans, outdoor crops of brussels sprouts, cabbage, cauliflower, kale (winter greens), collards (spring greens), broccoli, calabrese, potatoes (foliar spray and in furrow).
The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

**MAPP 18072**

**AZOSHY**
**UFI: YU70-SANS-940R-S3MG**

**Warning**
**Very toxic to aquatic life with long lasting effects**
Keep out of reach of children
Do not eat, drink or smoke when using this product.
Collect spillage.
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.**

**IMPORTANT INFORMATION**
FOR USE ONLY AS A PROFESSIONAL AGRICULTURAL/HORTICULTURAL FUNGICIDE

| | |
|---|---|
| Crops: | Wheat, rye, triticale, barley, oats, oilseed rape, combining pea, vining pea, bulb onion, leek, carrot, asparagus, field bean, broccoli/calabrese, brussels sprout, cabbage, cauliflower, kale, collard, potato. |
| Maximum individual dose:<br>Maximum number of treatments:<br>Latest time of application:<br>Other specific restrictions: | } Full details on 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**

**SAFETY PRECAUTIONS**
**Operator Protection**
WASH SPLASHES from skin or eyes immediately.
DO NOT BREATHE SPRAY.
WASH HANDS AND EXPOSED SKIN before meals and after work.
WHEN USING DO NOT EAT, DRINK OR SMOKE
IF YOU FEEL UNWELL, seek medical advice (show label where possible).

**Environmental Protection**
AVOID DRIFT onto non-target plants.
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 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.
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 CRD'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.

**Storage and Disposal**
KEEP IN ORIGINAL CONTAINER tightly closed in a safe place.
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 safely.
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
KEEP OUT OF REACH OF CHILDREN
DO NOT RE-USE CONTAINER for any purpose.
Protect from frost.

**READ DIRECTIONS FOR USE ON ATTACHED LEAFLET**
**Batch number: See container**


**Authorisation holder:**
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United Kingdom

**Marketing company:**
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Sharda Cropchem

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**IMPORTANT INFORMATION**
FOR USE ONLY AS A PROFESSIONAL AGRICULTURAL/HORTICULTURAL FUNGICIDE

| Crops | Maximum individual dose (L Product/ha) | Maximum number of treatments (per crop) | Latest time of application | Aquatic Buffer Zone (m) |
|---|---|---|---|---|
| Wheat, rye and triticale | 1 | 2 | Before watery ripe stage (GS71) | 5 |
| Barley, oats | 1 | 2 | Before beginning of flowering (GS61) | 5 |
| Oilseed rape | 1 | 2 | 21 days before harvest | 5 |
| Combining pea | 1 | 2 | 35 days before harvest | 5 |
| Vining pea | 1 | 2 | 14 days before harvest | 5 |
| Bulb onion | 1 | 3 | 14 days before harvest | 5 |
| Leek | 1 | 3 | 21 days before harvest | 5 |
| Carrot | 1 | 3 | 14 days before harvest | 5 |
| Asparagus | 1 | 2 | Before senescence | 5 |
| Field bean | 1 | 2 | 35 days before harvest | 5 |
| Broccoli/calabrese (outdoor) Brussels sprout (outdoor), cabbage (outdoor), cauliflower (outdoor), kale (outdoor) collard (outdoor) | 1 | 2 | 14 days before harvest | 5 |
| Potato | 0.5 | 3 | 7 days before harvest | 5 |
| Potato | 3 | 1 | At planting, applied as an in furrow treatment | 5 |

**Other specific restrictions:**
This product must not be applied via hand-held equipment.
To reduce the risk of resistance developing on target diseases the total number of applications of products containing QoI fungicides made to any cereal crop must not exceed two.
Non-returnable containers must not be re-used for any purpose.
A minimum of 7 days must be observed between applications in bulb onion, carrot and potato.
A minimum of 10 days must be observed between applications in asparagus.
A minimum of 12 days must be observed between applications in outdoor Brussels sprout, broccoli/calabrese and leek.
A minimum interval of 14 days must be observed between applications in rye, triticale, wheat, barley, oats, combining pea and vining pea.
A minimum interval of 21 days must be observed between applications in oilseed rape and field bean.

**READ THE LABEL BEFORE 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**

**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.

AZOSHY is a systemic translaminar and protectant strobilurin fungicide and belongs to the QoI group of fungicides (FRAC mode of action code 11). It inhibits fungal respiration and, to protect against the development of resistance, should always be used in mixture or programmes with other fungicides with different modes of action. In addition to disease control, it can maintain green leaf area in crops longer than untreated crops and this can also lead to significant yield benefits. Applied as a preventative treatment when predictive tools indicate the likelihood of disease development or at the first sign of disease in the crop, it gives 4 – 6 weeks protection against susceptible diseases when applied to cereals at the stem elongation stage. Persistence may be even longer when applied to the flag leaf or the ear.
Always inspect crops to assess disease development immediately before spraying. Best results will be achieved from applications made as a protectant treatment following a disease risk assessment or the use of appropriate decision support systems. For optimum disease control apply before infection or as soon as disease is first seen in the crop.

**RESTRICTION**
On cereal crops, AZOSHY must always be used in mixture with another product, recommended for control of the same target disease that contains a fungicide from a different cross resistance group and is applied at a dose that will give robust control.
Do not treat crops under stress as this may give less reliable results.
Possible causes of crop stress include poor soil or cultural conditions, adverse climatic conditions, water-logging or drought, pest or disease attack and nutrient deficiency. Apply under good growing conditions with adequate soil moisture.
Consult processor before treating crops destined for processing.
Certain apple varieties are highly sensitive to AZOSHY. As a precaution AZOSHY should not be applied when there is a risk of spray drift onto neighbouring apple crops. Spray equipment used to apply AZOSHY to other crops should not be used to treat apples.

**CROP SPECIFIC INFORMATION**
**1.Winter and spring oilseed rape**:
Two applications of 1.0 L/ha are permitted in oilseed rape between BBCH 60-69 with the last application at least 21 days before harvest. A second treatment may be required if disease pressure remains high. Application should be made using a MEDIUM quality spray as defined by BCPC in a minimum of 200 L/ha. Where crops are dense the water volume should be increased to 250-300 L/ha. AZOSHY will control the following diseases in oilseed rape crops:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Oilseed rape (Winter and Spring) | Dark leaf and pod spot | *Alternaria spp.* | Control – apply as a protectant spray when first 10 pods exceed 4 cm, before they become knobbly and not later than the time the first spots are seen on the pods. |
| | Sclerotinia stem rot | *Sclerotinia sclerotium* | Moderate control. Apply as a protectant spray during flowering. Optimum timing is early to mid-flowering (BBCH 60 – 65) |

**2.Winter and spring wheat, winter and spring barley:**
Two applications of 1.0 L/ha are permitted in wheat and barley. Application in wheat must be between BBCH 30-69 and application in barley must be between BBCH 30-59. For optimum activity against ear diseases application should be made at ear emergence. When used to control the listed foliar disease in wheat and barley, an application of AZOSHY at the first or second node stage of the crop may also reduce the severity of take-all (*Gaeumannomyces graminis var. Tritici*) infection.

AZOSHY will control the following diseases in wheat and barley crops:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Wheat (winter or spring) | Glume blotch | *Septoria nodorum* | Control |
| | Yellow rust | *Puccinia striiformis* | Control |
| | Brown rust | *Puccinia recondita* | Control |
| | Ear diseases | *Cladosporium spp., Alternaria spp.* | Control if applied at ear emergence |
| Barley (winter or spring) | Net blotch | *Pyrenophora teres* | Control |
| | Brown rust | *Puccinia hordei* | Control |
| | Leaf blotch | *Rhynchosporium secalis* | Reduction |

3. **Winter and spring oats, rye and triticale:**
When used to control the listed foliar disease in rye and triticale, an application of AZOSHY at the first and second node stage of the crop may also reduce the severity of Take-all infection. Two applications of 1.0 L/ha are permitted in oats, rye and triticale. Application in rye and triticale must be between BBCH 30-69 and before watery ripe stage (GS71) and application in oats must be between BBCH 30-59 with the latest application before the beginning of flowering (GS61). AZOSHY will control the following diseases in oats, rye and triticale crops:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Oats (winter or spring) | Crown Rust | *Puccinia coronata* | Control |
| Rye, triticale | Brown rust | *Puccinia recondita* | Control |
| | Leaf blotch | *Rhynchosporium secalis* | Reduction |

4. **Combining and vining peas**:
When AZOSHY is used to control leaf and pod spot, some control of Grey mould (*Botrytis* cinereal) and *Mycosphaerella* blight may be achieved. Two applications of 1.0 L/ha are permitted in peas between BBCH 17-72 with the last application at least 35 days before harvest for combining peas and 14 days before harvest for vining peas. Prior to treatment, ensure that the peas have adequate wax using a Crystal violet test kit. AZOSHY will control the following diseases in pea crops:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Peas (combining and vining) | Leaf and pod spot | *Ascochyta pisi* | Useful control |

5. **Bulb onions:**
Three applications of 1.0 L/ha are permitted in bulb onions between BBCH 14-48 with the last application at least 14 days before harvest. Optimum control is achieved by multiple applications at 7 – 10 day intervals starting when the disease is first seen in the crop or when conditions are deemed suitable for disease development. Note that once disease is established in the crop treatment is unlikely to give reliable control. AZOSHY will control the following diseases in bulb onions:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Bulb onions | Downy mildew | *Peronospora destructor* | Moderate control |

**6. Leeks:**
Three applications of 1.0 L/ha are permitted in leeks between BBCH 16-48 with the last application at least 21 days before harvest. Note that once disease is established in the crop treatment is unlikely to give reliable control. AZOSHY will control the following diseases in leeks:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Leeks | Leek rust | *Puccinia porri* | Control |
| | Purple blotch | *Alternaria porri* | Moderate control |

**7. Carrots:**
Three applications of 1.0 L/ha are permitted in carrots between BBCH 16-49 with the last application at least 14 days before harvest. Note that once disease is established in the crop treatment is unlikely to give reliable control. AZOSHY will control the following diseases in carrots:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Carrots | Alternaria leaf blight | *Alternaria dauci* | Control |
| | Powdery mildew | *Erysiphe polygoni* | Control |

**8.Asparagus:**
Two applications of 1.0 L/ha are permitted in asparagus between BBCH 41-89 with the last application applied before the end of September or before crop senescence, whichever is sooner. Note that once disease is established in the crop treatment is unlikely to give reliable control but the earliest application time is after the end of commercial cutting for the year. Where new beds are being established do not treat until at least three weeks after planting out the crowns. AZOSHY will control the following diseases in asparagus:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Asparagus | Stemphylium | *Stemphylium botryosum* | Moderate control |
| | Rust | *Puccinia asparigi* | Moderate control |

**9. Field beans:**
Two applications of 1.0 L/ha are permitted in field beans between BBCH 60-69 with the last application applied at least 35 days before harvest. Treatment should begin when the disease is first seen in the crop or when conditions are deemed suitable for disease development. A second application may be required where disease pressure remains high (a minimum interval of 21 days must be observed between applications). Note that once disease is established in the crop treatment is unlikely to give reliable control. AZOSHY will control the following diseases in field beans:

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Field beans | Rust | *Uromyces fabae* | Control |

**10. Brassicas:**
Two applications of 1.0 L/ha are permitted in Brassicas between BBCH 16-49 with the last application applied at least 14 days before harvest. Treatment should begin when the disease is first seen in the crop or when conditions are deemed suitable for disease development. A second application may be required where disease pressure remains high

but maintain an interval of at least 12 days between applications. Note that once disease is established in the crop treatment is unlikely to give reliable control. AZOSHY will give moderate control of the following diseases in Brussels sprouts, Broccoli, Calabrese, Cabbage, Cauliflower, Kale (winter greens), Collards (spring greens):

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Brassicas –Brussels sprouts, Broccoli, Cabbage, Cauliflower, Kale, Collards and Calabrese | Alternaria | *Alternaria brassicae & Alternaria brassicicola* | Moderate control |
| | Ring spot | *Mycosphaerella brassicicola* | Moderate control |
| | White blister | *Albugo candida* | Moderate control |

**11. Potatoes:**
Three post emergence applications of 0.5 L/ha are permitted between BBCH 51-85 for moderate control of early blight. A minimal interval of 7 days must be observed between applications with the last application at least 7 days before harvest.

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Potatoes (post emergence) | Early blight | *Alternaria solani* | Moderate control |

One in-furrow application is allowed in potatoes. This should be 3.0 L/ha applied at planting in the furrow with the seed potatoes and can reduce the severity of the soil-borne diseases listed in the table below. Aim the treatment at the soil not the tubers and note that the tubers should not have started to sprout. Where sprouting has started it may cause a delay in emergence.

| Crop | Disease | | Level of control expected |
|---|---|---|---|
| Potatoes (in furrow application) | Stem Canker | *Rhizoctonia solani* | Reduction |
| | Black Scurf | *Rhizoctonia solani* | Reduction |
| | Black Dot | *Colletotrichum coccodes* | Reduction |

Tubers that have previously been treated with imazalil, pencycuron or imazalil/pencycuron mixtures are at greater risk of delayed emergence. These effects are normally but not always outgrown. Do not use AZOSHY on highly organic soils since treatment will not be effective.

**MIXING AND SPRAYING**
Users should always inspect crops to assess disease development immediately before spraying.
Before spraying it is important to check all hoses, filters and nozzles, and to ensure that the sprayer is clean and correctly set to give an even application at the correct volume. Half fill the spray tank with clean water. Begin agitation and add the required quantity of AZOSHY directly to the tank. Add the remainder of the water and agitate the mixture thoroughly before and during spraying. When using tank-mixtures, check whether there is an order of mixing in the compatibility section below.

**APPLICATION**

For cereals, combining peas, fresh peas, oilseed rape, carrots, field beans, leek, potatoes (foliar), and bulb onions application should be made using a MEDIUM quality spray as defined by BCPC in a minimum of 200 L/ha and at pressure of at least 2 bar. Where crops are dense the water volume should be increased to improve coverage.
For Brussels sprouts, cabbage, cauliflower, kale (winter greens), collards (spring greens), broccoli and calabrese application should be made using a MEDIUM quality spray as defined by BCPC in a minimum of 250 L/ha at a pressure of at least 2 bar.
For asparagus application should be made with a conventional tractor mounted spray equipment using a MEDIUM quality spray as defined by BCPC in a minimum of 600 L/ha at a pressure of at least 2 bar.
For potatoes (In-furrow) apply between 50-150 litres of water per hectare. Apply using specialist in-furrow application equipment at a pressure of at least 2 bar.
Do not leave the spray liquid in the sprayer for long periods (such as during meal breaks or overnight).

**RESISTANCE MANAGEMENT**

AZOSHY contains azoxystrobin a member of the QoI cross resistance group. AZOSHY should be used preventatively and should not be relied on for its curative potential. Disease control may be reduced if strains of pathogens less sensitive to azoxystrobin develop.
To avoid the likelihood of resistance developing, applications of AZOSHY should be made with due regard to the current FRAC and FRAG-UK guidelines for QoI compounds.
Good resistance management techniques should be adopted when using AZOSHY. Strategies should include mixtures or sequences with other fungicides with different modes of action where appropriate and nonchemical methods such as selection of varieties with inherent resistance to some diseases. Note the limits on the number of applications of fungicides with the QoI mode of action in nominated crops.
· All cereal crops: You must not apply more than two foliar applications of QoI-containing products to any cereal crop. On cereal crops AZOSHY must always be used in mixture with another product, recommended for control of the same target disease that contains a fungicide from a different cross resistance group and is applied at a dose that will give robust control.
· Bulb onions, leeks and carrots: A maximum of two applications if applied alone or three applications if applied with a fungicide from a different cross- resistance group. To avoid the likelihood of resistance developing, applications of AZOSHY should be made with due regards to current guidelines for QoI compounds, as illustrated below in the following table:

| Total number of spray applications per crop | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | ≥12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum recommended Solo QoI fungicide sprays | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | **4** |
| Max. recommended QoI fungicide sprays in mixture | 1 | 2 | 2 | 2 | 2 | 3 | 3 | **4** | **4** | **4** | **4** | **4** |

· Asparagus: A maximum of two applications of AZOSHY per crop
· Field beans, Brassica crops, combining peas, vining peas and oilseed rape: A maximum of two applications of AZOSHY per crop.
· Potatoes: A maximum of one in-furrow application and a maximum of three foliar applications per season if the disease pressure remains high.
To avoid the likelihood of resistance developing to QoI compounds used to control potato late blight, application of AZOSHY should be made with due regard to current FRAG-UK guidelines for QoI compounds. If an application of AZOSHY is made, no more than two further QoI treatments should be applied sequentially as the first sprays against late blight before using an alternative product.

When applying these fungicides, use doses that will give good control.
Strains of barley powdery mildew that are resistant to QoI fungicides are common in the UK and there is already a significant risk of widespread resistance to QoI fungicides in some Septoria tritici populations. The development of resistance in other pathogens cannot be ruled out and, where this occurs, reduced control is inevitable. Consult the FRAG UK guidelines on QoI fungicides.

**COMPATIBILITY**

Information on a range of compatible mixtures is given below. For more details, contact your supplier.

**Fungicides:**

| Active ingredient | MAPP Number of product |
|---|---|
| cyprodinil | MAPP 14847 |
| fluoxastrobin + prothioconazole | MAPP 19966 |
| flutriafol | MAPP 19597, 19592, 19596 |
| metconazole | MAPP 15337 |
| proquinazid | MAPP 12835, 12752 |
| prothioconazole | MAPP 12084, 19705 |
| prothioconazole + spiroxamine | MAPP 18289 |

**Herbicides:**

| Active ingredient | MAPP Number of product |
|---|---|
| clodinafop-propargyl | MAPP 18568 |
| florasulam | MAPP 19536 |
| florasulam + fluroxypyr | MAPP 19775 |
| MCPA | MAPP 14814 |
| mecoprop-P | MAPP 18374, 19609 |
| metsulfuron-methyl + thifensulfuron-methy | MAPP 18824 |
| metsulfuron-methyl + tribenuron-methyl[1] | MAPP 20682 |
| tribenuron-methyl | MAPP 20357 |

[1] When mixing AZOSHY with metsulfuron-methyl + tribenuron +/- fluroxypyr, add AZOSHY to the tank last.

**Insecticides:**

| Active ingredient | MAPP Number of product |
|---|---|
| lambda-cyhalothrin[2] | MAPP 12629 |
| tau-fluvalinate | MAPP 10612 |

[2] Add AZOSHY to the tank first.

**Plant Growth Regulators:**

| Active ingredient | MAPP Number of product |
|---|---|
| Chlormequat | MAPP 16690 |
| Trinexapac-ethyl | MAPP 15151, 20752 |

**Trace elements:**
AZOSHY is also compatible with a number of trace element products which should be added to the spray tank last with agitate on running and should be sprayed immediately. For details of compatible mixtures, contact your supplier.

**CLEANING OF APPLICATION EQUIPMENT**

To avoid damage to other crops, the application equipment must be thoroughly de contaminated after application.
· Immediately after application, drain the tank completely and wash down with clean water. Rinse out the tank and flush through the booms and hoses.
· Half-fill the tank with clean water and add the recommended dose of detergent cleaner. Agitate and then flush the boom and hoses with the cleaning solution. Top up the tank so that it is completely full and leave to stand for 15 minutes with the agitation running. Flush the booms and hoses again and drain completely.
· Remove the nozzles and filters and clean separately in a solution of detergent cleaner in 10 litres of water.
· Rinse the tank again with clean water, using at least 10% of the tank volume and dispose of the washings safely. For disposal of washings in the UK, follow the DEFRA 'Code of Practice for Using Plant Protection Products' (2006) while in Ireland you should comply with local and national regulations.

**COMPANY ADVISORY INFORMATION**
The following does not form part of the product label under the UK Plant Protection Products Regulations but provides additional Company advice on the product use.

**Conditions of supply**
All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use or the weather conditions before, during and after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.