ENGINEERED BENEFITS FLEXURE®

FLEXURE

FLEXURE is an emulsifiable concentrate formulation containing 160 g/l (16.3% w/w) prothioconazole and 300 g/l (30.6% w/w) spiroxamine.

It is a fungicide for the control of stem-base, foliar and ear diseases in wheat, rye, barley, oats, durum wheat and triticale.

It is a reverse-engineered product based on Helix.

For more information including product label, safety data sheet and compatible tank-mixes see the Life Scientific website FLEXURE® - Life Scientific UK or download the App to get product information direct to your phone.

Crop approvals

CROP	MAX IND. DOSE	MAX NO. TREATMENTS PER CROP	LATEST APPLICATION
Wheat, rye, durum wheat and triticale	1.25L/Ha	2	Before caryopsis watery ripe stage (BBCH 71)
Barley and oats	1.25L/Ha	2	Beginning of flowering (BBCH 61)

- Aquatic buffer zone – 6 metres.
- Only one application may be made before 30 April (BBCH 30-37) followed by a second application after 1st May (BBCH 37-71).
- Alternatively, two applications can be made after 1st May (BBCH 37-71).
- A minimum interval of 21 days must be observed between applications.

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The product

FLEXURE combines the strengths of active ingredients from two different fungicide groups, prothioconazole from FRAC group 3 - DMI fungicides, and spiroxamine from FRAC group 5 - amines ("morpholines").

Whilst in the same overall FRAC group as morpholines, spiroxamine is in its own unique chemical group – the spiroketal amines. Both DMI's and amines work by affecting sterol biosynthesis in membranes, but there is no cross-resistance between the groups according to FRAC.

Spiroxamine is known to have good activity on rusts and powdery mildew, like the morpholines, as well as having activity on other diseases such as Rhynchosporium and Net blotch.

Spiroxamine is protectant and curative, and has an unusual property of enhancing the absorption of other fungicides into the plant.

According to Farmers Weekly, laboratory trials showed the active ingredient to "increase translocation of tebuconazole by 58% over three hours and by almost 100% 24 hours after application".

Disease activity

FLEXURE has a broad spectrum of activity against cereal diseases.

CROP	DISEASES
Wheat, durum wheat, triticale	Eyespot, Septoria (leaf and glume blotch), Powdery mildew, Yellow rust, Brown rust*, Tan spot*, ear disease complex (Fusarium ear blight* and reduction of sooty moulds).
Barley	Eyespot, Powdery mildew, Yellow rust, Brown rust, Rhynchosporium, Net blotch.
Rye	Eyespot, Powdery mildew, Brown rust, Rhynchosporium, ear disease complex (Fusarium ear blight* and reduction of sooty moulds).
Oats	Eyespot, Crown Rust, Powdery mildew.

*Moderate control

The combination of spiroxamine and prothioconazole is effective and its tank-mix flexibility makes it useful as part of an anti-resistance programme.

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Flexure trials data

Whilst both actives in FLEXURE are well-established, little work has been conducted in recent years to check the activity of spiroxamine on current strains of disease.

In 2024, ADAS Boxworth conducted fully replicated trials to investigate protectant and curative effects of FLEXURE against powdery mildew compared with standards. Treatments included AURELIA (straight prothioconazole), cyflufenamid, fenpropidin (another morpholine), FLEXURE and sulphur, all applied at full and half rates.

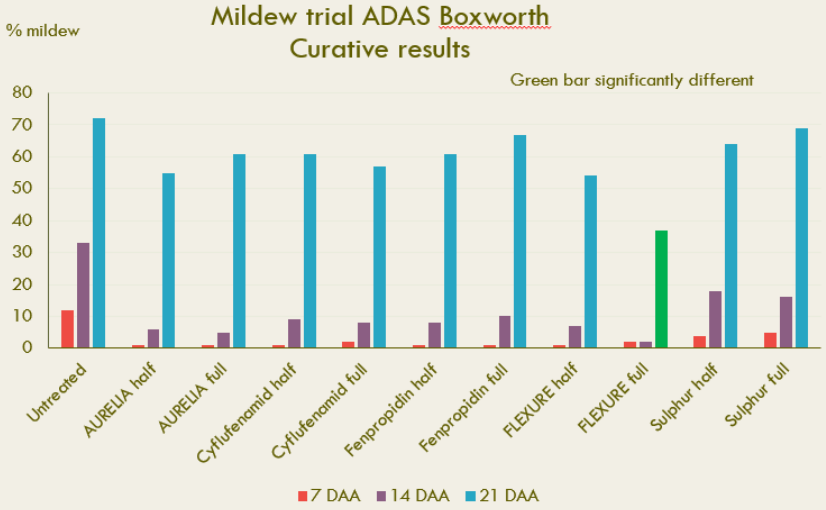
Wheat plants were inoculated with a natural strain of mildew. Protectant applications were made 5 days before inoculation and curative sprays were made 5 days after inoculation. Assessments of percentage disease were then made at 0, 7, 14, 21 and 28 days after the curative application.

Results showed that the products performed equally well as protectant sprays up to 14 days after application.

In the curative test, the products gave similar levels of control until 14 days after application, but full rate FLEXURE (1.25 L/Ha) gave significantly better control of powdery mildew than all the other treatments at the 21 day and 28 days assessments, making it the most effective curative mildewicide in the trial.

Plants being checked for powdery mildew at ADAS Boxworth.

The graph below shows the percentage of powdery mildew seen in the trial up to 21 days after the curative application.



ADAS concluded that FLEXURE had a high level of activity against powdery mildew in the trial.

Following the loss of approval of morpholines such as fenpropimorph and fenpropidin in GB, spiroxamine is the only remaining active ingredient from group 5 and can therefore play a role in resistance management in fungicide programmes, as active ingredients from DMI's, SDHI's and strobilurins are relied on heavily.

About Life Scientific

We specialise in bringing high quality off-patent crop protection products to market. Our goal is to give our customers better options to meet their plant protection needs.
So if it's under the Life Scientific brand you can be confident it's as effective as the current leading standards in the market.

For product queries in the UK, call our new free phone helpline 0800 044 5025 or email infoUK@lifescientific.com

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