

WITH NEW CHEMISTRY, NEW ACTIVES AND A LOT OF MISINFORMATION IN THE MARKET, SORTING THE FACTS FROM THE FICTION IS NOT ALWAYS EASY.



## **Bleachers bleach**

## Understand the mode of action of Overwatch® Herbicide

Belonging to the isoxazolidinone chemical family, Overwatch<sup>®</sup> Herbicide (active ingredient Isoflex<sup>®</sup>) has a unique Group 13 mode of action for weed control in wheat, durum, barley, canola, faba beans and field peas.

The unique Isoflex<sup>®</sup> active powering Overwatch<sup>®</sup> Herbicide works by blocking carotenoid biosynthesis. After absorption, susceptible germinating weeds are deprived of protective carotenoids which disrupts their ability to photosynthesise.

Weed seedlings that have absorbed Overwatch<sup>®</sup> Herbicide commonly emerge with a bleached and/ or magenta appearance. This visual signature of Overwatch<sup>®</sup> Herbicide is most evident in annual ryegrass and wireweed. The affected seedlings then rapidly desiccate over a few weeks when their seed energy store is depleted.



For all crops treated with pre-emergent herbicides, there may be some risk of interim crop phytotoxicity. In most situations, phytotoxicity is expressed as transient bleaching of the older leaves. Bleaching is a generic term used to describe chlorosis of the leaf, where the leaf colour changes from green (normal) to a lighter shade. Bleaching can be complete (whole leaf) or partial (leaf margins, veins or leaf mid-rib). Bleaching is not unique to Overwatch<sup>®</sup> Herbicide and is caused by multiple herbicide modes of action used in the same crops Overwatch<sup>®</sup> Herbicide holds registration. Bleaching can be irreversible, or transient in nature. In the case of Overwatch<sup>®</sup> Herbicide, bleaching is transient under good growing conditions.







An Agricultural Sciences Company



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Overwatch<sup>®</sup> Herbicide is not the only herbicide that has potential to show transient bleaching. GROUP 27 (formerly H), known as the HPPD inhibitors such as Velocity<sup>#</sup>, Callisto<sup>#</sup> or Balance<sup>#</sup> as well as the Group 12 (formerly F) Herbicides, referred to as the PDS inhibitors such as Brodal<sup>#</sup> Options, Jaguar<sup>#</sup> and Sniper<sup>#</sup> can exhibit similar transient bleaching symptoms in their label approved crops.

Bleaching with the pre-emergent herbicides identified thus far most often occurs as a result of the seed coming into contact with treated soil. In the case of Overwatch<sup>®</sup> Herbicide this is when seedlings germinate within 3 cm of treated soil. This can occur as a result of the seeding process (e.g. sowing too shallow or travelling at a speed which results in excessive soil throw), the seeding system (e.g. knifepoints with splitter boots placing the seed on the furrow wall), through conditions outside other use parameters of the product as stated on the label such as environmental conditions (e.g. heavy rainfall or strong winds soon after planting), paddock condition (e.g. heavy stubble load providing > 50% ground cover) and soil condition or type (e.g. compacted soils resulting in shallow seeding depth).



## Management of Overwatch® Herbicide treated crops.

It is important to maintain good agronomic crop management to ensure the crop will be able to achieve its best yield potential. When early transient bleaching from Overwatch<sup>®</sup> Herbicide does occur, ensure the crop is monitored for pests and disease and implementing appropriate control measures without delay. Delaying the application of post emergent treatments for weeds, pests and diseases, as a result of the perception that the impact of transient bleaching may lead to slower recovery of the crop, or that bleached crop have a reduced requirement for nutrients, is NOT advised.

Bleached crops have the same requirements at critical crop development stages as non-bleached crops and weed, insect and disease controls are time dependant. Delays in the application of these controls will reduce product efficacy, cost efficiency and crop recovery, all leading to a reduced yield potential.

Maintaining the nutritional requirements of the crop is also imperative and may also assist the crop to move through the transient bleaching more quickly to reach its yield potential.

## For further details, visit www.overwatchherbicide.com

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