

CONFIDENCE  
STARTS  
HERE

**Pylex**<sup>®</sup>  
Herbicide

**Strikingly  
Effective**

TECHNICAL  
GUIDE

**BASF**

We create chemistry



**Note from the team:**

**Introducing Pylex® Herbicide | Strikingly Effective**

Dedicated to investing in the research and development for a complete, quality turf solution, BASF are excited to share the new benchmark for greens weed control, Pylex Herbicide. For over 150 years, we have developed innovations that focus on current and pressing challenges. Managing warm season grass and broadleaf weed control in cool season turf has continued to be an ongoing industry concern, with a laborious, manual solution.

Introducing Pylex. With a new and unique chemistry and use pattern for greens, BASF, together with experienced distributor sales and technical teams, have focused on bringing an exceptional new standard to the market for the Australian Turf Industry. We are excited to introduce this technology, unmatched in efficacy and performance, to superintendents and turf managers across the country. We look forward to watching Pylex revolutionise greens management and anticipate its ongoing success as we bring new technologies and innovations to compliment this program in the near future.

***Kiana Barrie-Gresham***

*Technical Development Specialist*

*BASF Professional and Specialty Solutions*

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# Pylex<sup>®</sup> Herbicide



## Strikingly Effective

**Pylex Herbicide** offers a new use pattern for the control of warm season grass and broadleaf weeds within cool season turf. This new and unique technology enables the safe and efficient removal of broadleaf weed species and warm season turf species, including Buffalo grass, Kikuyu, Couch and Queensland Blue Couch, from cool season turf, including on Bent grass greens. As the only solution for selective weed control of its kind, Pylex Herbicide replaces current manual, mechanical removal of unwanted encroaching turf from your collars into your greens.

Pylex Herbicide revolutionises Bent grass greens management in not only its efficacy, but also its advances to labour efficiencies and turf safety with its pre-measured packaging. Designed to minimise chemical calculations, developed and packaged specifically for its use in the Australian market, Pylex's easy-to-handle syringes are ideal for the turf management industry's challenges with labour and efficiencies.

Pylex Herbicide is pioneering an unmatched combination of turf safety and exceptional efficacy for Bent grass greens management across the country.

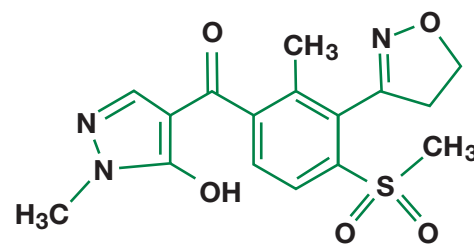
## Pylex Herbicide

### The science behind

Pylex Herbicide is a Group 27 herbicide. Inhibiting the plant enzyme 4-hydroxyphenylpyruvate dioxygenase (HPPD inhibitor), Pylex Herbicide compromises photosynthesis and results in the bleaching of new tissues on sensitive weeds. HPPD catalyses the breakdown of the amino acid Tyrosine which has three negative consequences for the target weed:

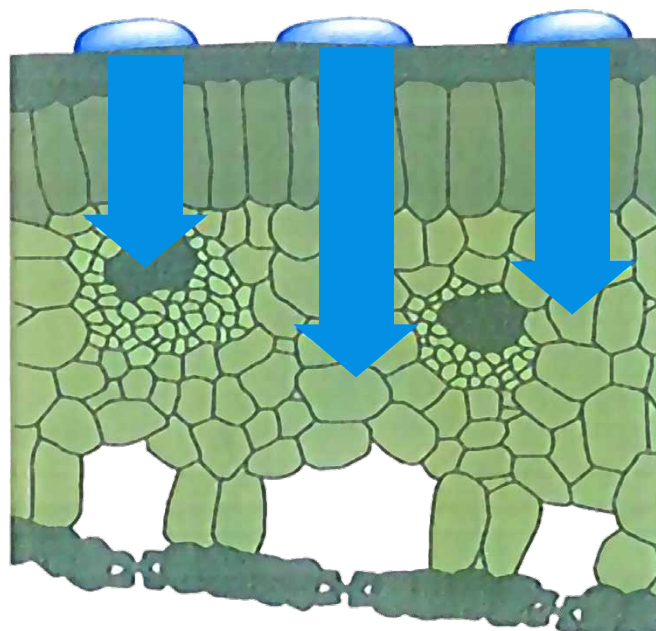
- The excess of Tyrosine stunts weed growth;
- The weed suffers oxidative damage through lack of tocopherols (Vitamin E);
- Chlorophyll, required for the photosynthetic cycle, is destroyed due to lack of carotenoids resulting in the death of the target weed.

Readily absorbed by treated foliage Pylex Herbicide is translocated systemically within the target weed. Susceptible weeds cease growth soon after application. Methylated Seed Oils (MSO) enhance leaf absorption as they maximise coverage and penetration of the chemistry into the target weed. The use of an MSO is included on the label application rates and are required for optimal efficacy.



### Why combine Pylex Herbicide with an MSO rather than a non-ionic surfactant?

The Pylex Herbicide label stipulates the use of a MSO which is essential for maximising translocation throughout the target weeds. Like a non-ionic surfactant, MSO's reduce surface tension of the droplet once it lands on the surface of the foliage. Where an MSO differs, is its capacity to improve the penetration of the chemistry through the waxy leaf cuticle of the target plant. In the case of Pylex Herbicide with low application rates, and relative concentrations of active ingredient, ensuring effective penetration of the chemistry is key to achieving optimum results.



*Images from VictoriaChemicals.com*

Surfactants reduce surface tension allowing greater coverage of spray solution on plants. Penetrants reduce surface tension while also helping products into the plant through the waxy leaf cuticle.



## Exceptional **control and safety**

Extensive, local safety and efficacy trials confirm **Pylex Herbicide's exceptional performance and success with selective control and greater turf safety.**

Local safety and efficacy trials confirm Pylex Herbicide's performance against all labelled weeds at two rates, however, the tolerance of Bent grass (for greens applications) requires a lower dose over two applications. Further details are provided on the label directions for use table. Summarised below are all tolerant and susceptible species which appear on Pylex Herbicide's label, not only warm season grass weeds, but also a diverse range of broadleaf weeds.

### Tolerant turf species

- Bentgrass/Creeping Bentgrass (*Agrostis capillaris*)
- Fine fescue (*Fescue* spp.)
- Tall fescue (*Festuca arundinacea*)
- Perennial Ryegrass (*Lolium perenne*)
- Kentucky Blue Grass (*Poa pratensis*)

### Grass weeds controlled (warm season turf)

- Buffalo (*Stenotaphrum secundatum*)
- Couch (*Cynodon dactylon*)
- Hybrid couch (*Cynodon dactylon* x *Cynodon transvaalensis*)
- Crowsfoot grass (*Eleusine indica*)
- Kikuyu (*Pennisetum clandestinum*)
- QLD Blue Couch/Summer grass (*Digitaria* spp.)

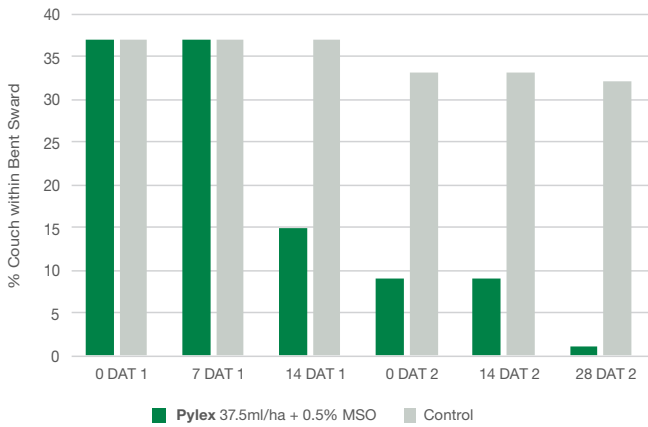
### Broadleaf weeds controlled

- *Amaranthus* spp.
- Bindy eye (*Soliva sessilis*)
- Creeping oxalis (*Oxalis corniculata*)
- Everlasting (cudweed) (*Gamochaeta pensylvanica*)
- Fleabane/Horseweed (*Conyza bonariensis*)
- Scarlet Pimpernel (*Anagallis arvensis*)
- Sowthistle (*Sonchus oleraceus*)
- White clover (*Trifolium repens*)
- Wild carrot (*Daucus carota*)

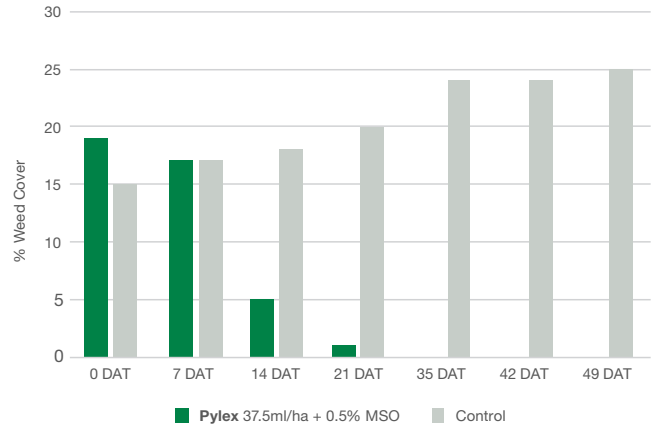
## Fast and effective

The efficacy of Pylex Herbicide is consistent on all target weeds with no concern for host grass injury. Figures 1-4 below follow a consistent trend of decreasing weed populations rapidly in the first 14-21 days.

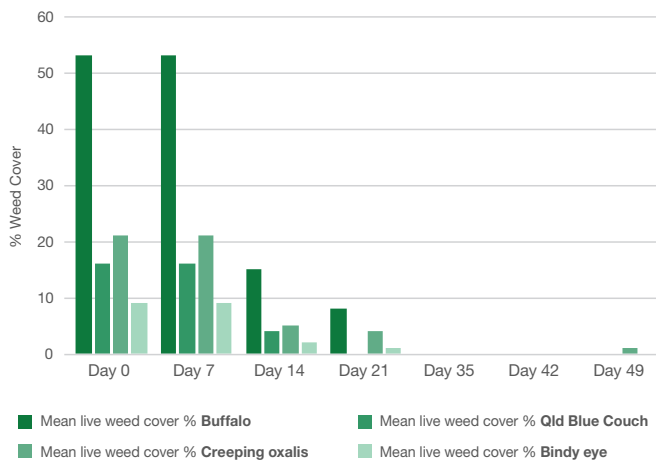
**Pylex® Herbicide** achieves 97% control of Couch Grass within a Bent grass green (Autumn)



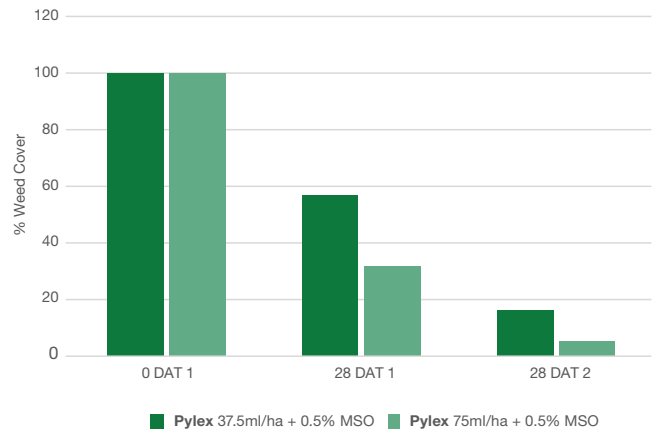
**Pylex® Herbicide** Efficacy on Crowsfoot



**Pylex® Herbicide** Efficacy on various weed types



**Pylex® Herbicide** Efficacy on Kikuyu Grass (established plot) 84% Control @ 37.5ml/ha + 0.5% MSO



## Value to turf managers | **Features and benefits**



New and unique chemistry use pattern for Bent grass greens (also suitable for spot application or broad area treatments)

Control of warm season grass and broadleaf weeds, in cool season turf



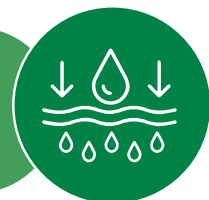
Exceptional performance and efficacy with highly selective control benchmarking weed management for Bent grass greens

Highly selective control and pre-measured packaging promises greater turf safety



Safe for all cool season turf grasses

Readily absorbed by treated foliage with optimised translocation to the growing points of susceptible weeds



Rapid and clear visual effects (bleaching) within 7-10 days of application



## Incorporating Pylex Herbicide into **Bent grass greens management**

Considering the highly specific and targeted behaviour of Pylex Herbicide, it is important to ensure correct application for reliable results, taking particular care with sprayer calibration and conditions conducive for success. In addition to calibration of equipment, there are a number of factors which affect control and should be considered when planning your Pylex Herbicide program.

### Factors that **affect control**



MSOs are essential to assist Pylex Herbicide in penetrating the leaf for consistent control. Required rates for MSO adjuvants can be found on the directions for use table of the Pylex Herbicide label.



Early encroachment and actively growing weeds are more susceptible than more advanced growth stages. Pylex Herbicide should be applied when weeds are not in their strongest, fittest growth stage and state for best results.



Good coverage of the target weed is essential to achieving reliable control. Even coverage enables Pylex Herbicide's excellent translocation capacity to be maximised. This factor takes into account calibration of spray equipment, and use of a high quality MSO.



Pylex Herbicide is a light-activated technology, as it works to disrupt the photosynthetic cycle of target weeds. Conditions conducive to maximum photosynthesis (moist, warm, bright sunshine) are ideal.



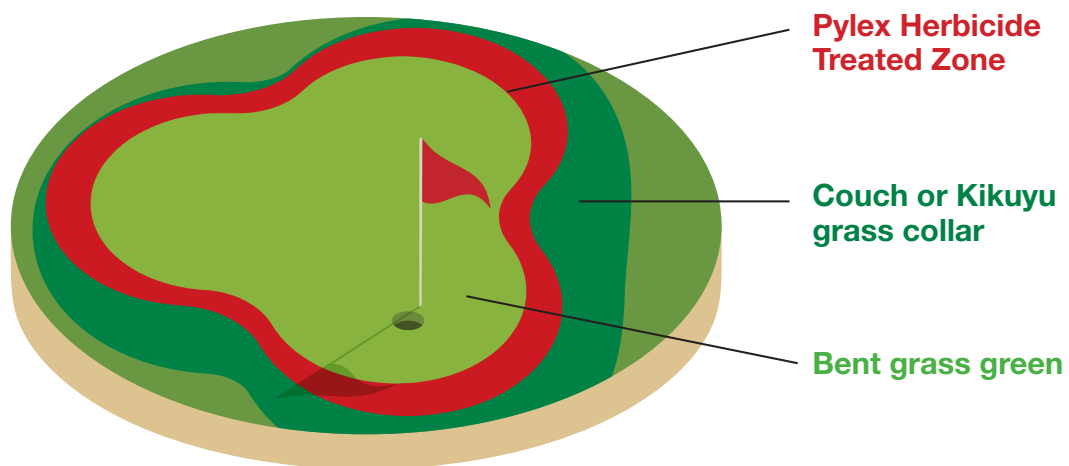
Cool weather can reduce the speed of activity. Pylex Herbicide's performance is maximised in consistently bright, warm conditions.



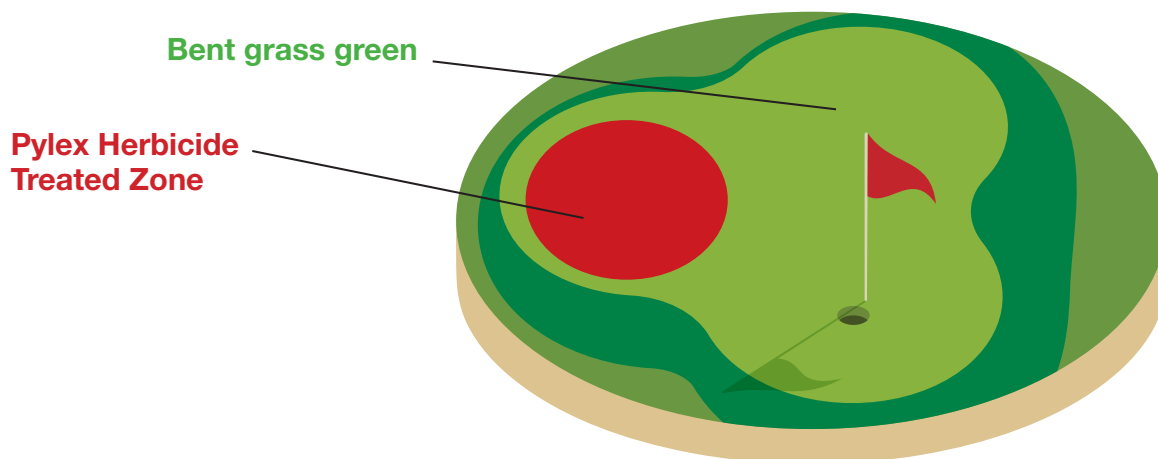
## Application situations

With packaging designed specifically for the Australian turf market, Pylex Herbicide promotes turf safety and ease of application while minimising the risk of mixing errors. Application situations are diagrammed below and represent some of the most common uses for Pylex Herbicide and its capacity for versatile greens management.

### 1. Controlling encroaching runners from the collar

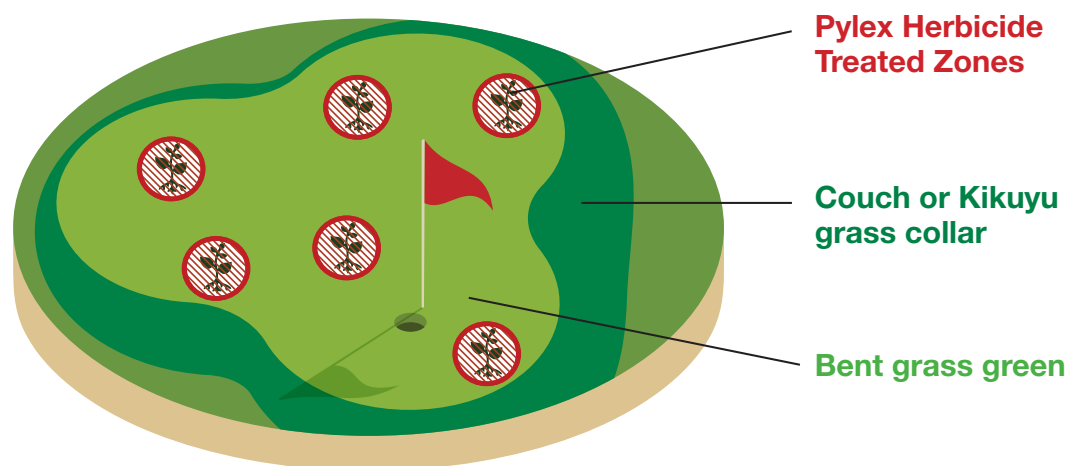


### 2. Large area application within the green for target areas

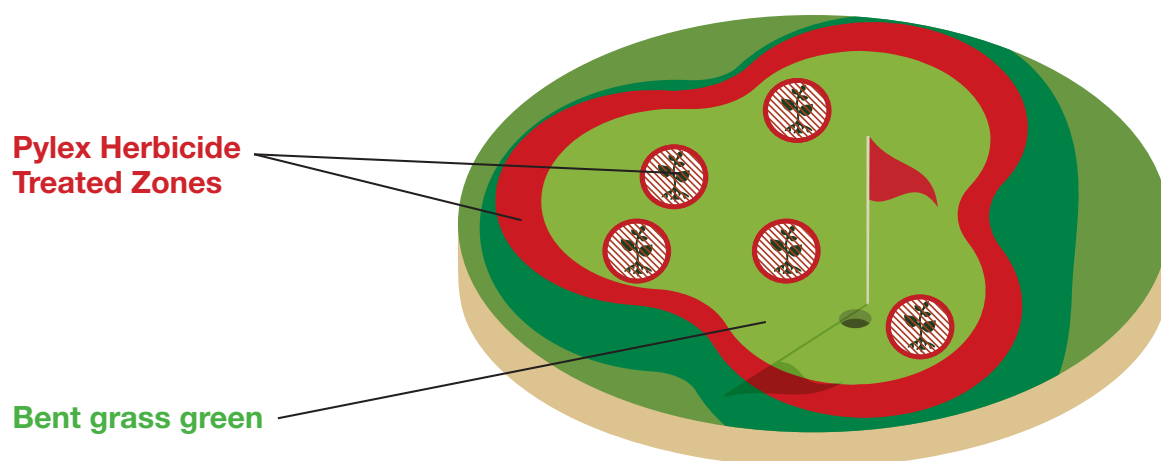


## Application situations

3. Spot applications within the green for removal of target weeds



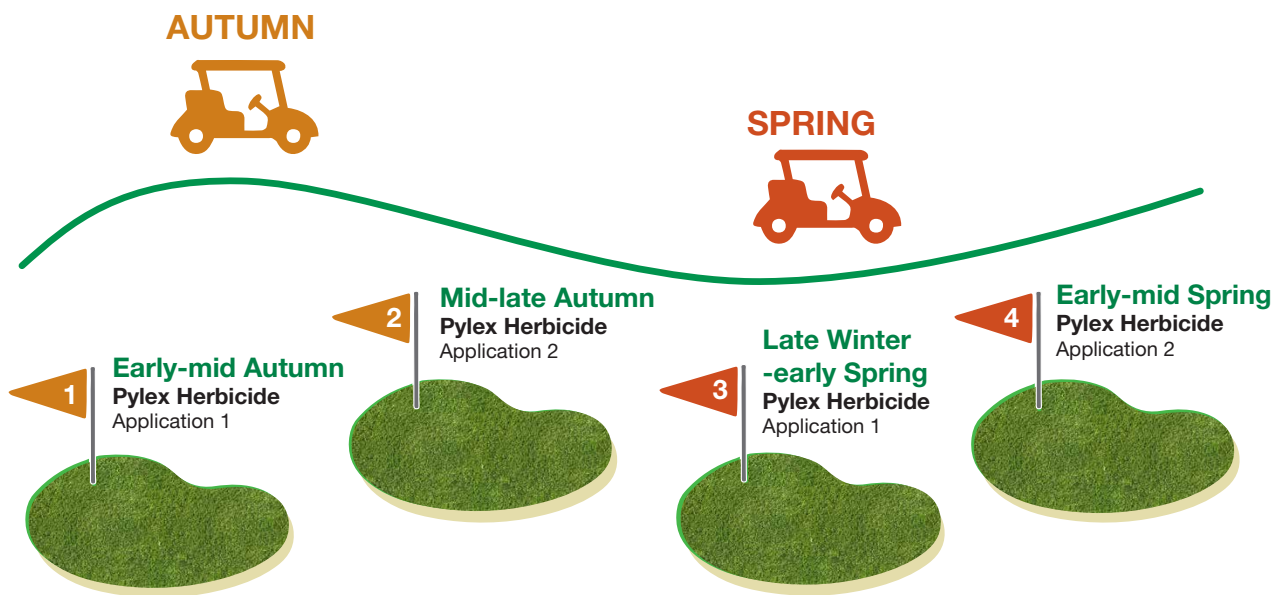
4. Combination of spot applications and inner green treatment





# Pylex Herbicide program

Ideal application windows should take into account local factors, and factors affecting control. The below proposed program captures a re-application interval of 21-28 days, with two applications in Autumn and two applications in Spring. There are opportunities for additional applications, and movement outside of this seasonal window dependent on climate and establishment of the target runners.



## Pylex Herbicide **FAQ's**

### **What is the ideal use rate?**

**For Bent grass greens:** 0.375 ml/100m<sup>2</sup> in 4-6L of water + 0.5% MSO is the labeled rate of application. At this rate two repeat applications 21-28 days apart will be required.

**For other cool season turf:** 0.75 ml/100m<sup>2</sup> in 4-6L of water + 0.5% MSO is the labeled rate of application. At this rate a single application will likely be sufficient.

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### **What is the typical reapplication timing for Pylex Herbicide?**

Typical re-application for Pylex Herbicide is every 21-28 days.

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### **Are 3 applications of Pylex Herbicide likely to be required?**

Proposed application strategies outline the requirement for two repeat applications in most cases (on Bent grass greens). The requirement for three sequential applications may be required dependent on the time of year and establishment of the target weed.

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### **Is there a risk of turf injury after scarifying?**

Local trials have demonstrated that scarifying did not result in increased risk or performance when Pylex Herbicide is applied. However, it is important to ensure turf is not stressed prior to application.

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### **What is the residual timeframe for re-seeding around a Pylex Herbicide program?**

Do not apply for 28-days after seeding tolerant turf.  
Avoid application 7-14 days before seeding tolerant turf.

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## Pylex Herbicide **FAQ's**

### **What is the likelihood of translocation into the collar?**

Clear defined lines with a flat fan nozzle, can be achieved when treating close to the collar. Users should take care in ensuring the edge of the spray does not cover the warm season collar, which will be affected by the chemistry if treated. Tracking on shoes doesn't occur once spray has dried.

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### **Can Pylex be used in conjunction with PGR programs?**

Yes, Pylex is suitable for use in a spray program which includes Trinexapac-ethyl.

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### **When are the visual effects likely to be observed after applying Pylex Herbicide?**

Visual effects on susceptible species occur 7-10 days after application.

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### **Are there any concerns for turf injury when applying Pylex Herbicide to Bent grass greens of mixed swards?**

Pylex Herbicide is suitable for use on mixed swards. In some cases some minor transient discolouration of some Bent grass cultivars may be observed in the first 7-14 days following application. In all cases during local trials, the Bent grass quickly recovered from this discolouration and it has not been observed in all treatments.

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# Pylex<sup>®</sup>

Herbicide



For more information on Pylex<sup>®</sup> Herbicide,  
visit [turf-solutions.basf.com.au](https://turf-solutions.basf.com.au)  
or call **1800 558 399**

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