

Application

Uptake & Movement

- Trinexapac-ethyl is predominantly absorbed by leaves and crowns.
- Rapid uptake ensures rain fastness within one hour.
- Xylem systemicity ensures only upward movement.

Application placement

Placement of Primo MAXX is very important to ensure best results.

- Low application volume (<150 L/ha) will tend to place Primo MAXX high in turf canopy – resulting in loss of residual action due to regular mowing (Fig 4).
- Mid range application volumes (~350-450 L/ha) will tend to ideally place Primo MAXX throughout the turf canopy including into the crown – resulting in optimal residual action and performance (Fig 5).
- Optimal coverage can be obtained using spray nozzles delivering medium to coarse droplets (Tables 1 and 2).

Tank Mixing

The technology of the Syngenta MAXX formulations ensures the excellent tank-mixing capabilities of Primo MAXX. It can be used in tank-mixes with most fungicides (all Syngenta fungicides) and most foliar fertilisers.

In some cases turf will appear slightly yellow after the first application of Primo MAXX. This is caused by the

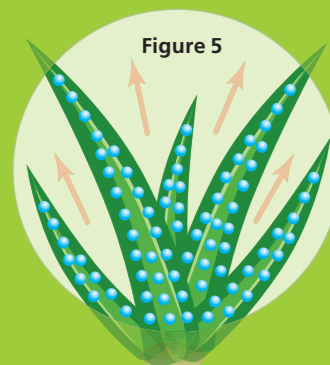
larger older leaves senescing and turning yellow naturally. The fact that the new leaves, under Primo MAXX regulation, are smaller means that the older, bigger leaves (senescing and yellowing) are now more visible. This effect can be masked by adding the recommended rate of an iron based fertiliser or the equivalent of 100-240 g actual N per 100 m² to the spray mix.

Tables 1. Optimal spraying parameters for using Primo MAXX on greens

Wind Speed	Nozzle Type	Nozzle Size	Water Rate	Pressure	Speed	Droplet Size
2-5 km/h	XR TeeJet Hardi Iso Flat Fan	110 04	380-470 L/ha	3 bar	5 km/h	Medium
		or 110 05				
5-10 km/h	Turbo TeeJet Hardi Iso Low Drift	110 04 or 110 05	380-470 L/ha	3 bar	5 km/h	Coarse

Tables 2. Optimal spraying parameters for using Primo MAXX on fairways

Wind Speed	Nozzle Type	Nozzle Size	Water Rate	Pressure	Speed	Droplet Size
2-5 km/h	XR TeeJet Hardi Iso Flat Fan	110 04	270-470 L/ha	3 bar	8 km/h	Medium
		or 110 08				
5-10 km/h	Turbo TeeJet Hardi Iso Low Drift	110 04 or 110 08	240-470 L/ha	3 bar	8 km/h	Coarse



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For further information contact
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making good turf
great

The way in which Primo MAXX® is used on golf courses today has drastically changed over the past few years. Gone are the days when mowing reduction was the only reason to consider Primo MAXX on your course. We now know we can vary rates of use to suit all facets of turf management, from enhancing the quality of tees and greens to making car path and bunker edges less tedious to maintain.

Better Turf Quality

Primo MAXX is designed to regulate vertical leaf growth and promote a high quality, dense sward of healthier turf for better playing conditions. Primo MAXX treated turf plants continue to grow, just in a different way. Energy and resources normally used for vertical leaf growth are diverted to side shoots, stolons and the root system. Continually treated turf therefore has a bigger and healthier root system which helps the plant to resist the effects of drought, stress and wear. Due to less leaf growth there will be fewer clippings and a noticeably cleaner cut.

Continuous use

Primo MAXX can be continuously and safely used for up to 12 months of the year. *Tracking* the growth rate of the turf with the rate of Primo MAXX applied is essential to manage regulation, economy and expectations of every application.

Shaded areas

Grass plants growing in shaded areas tend to overproduce gibberellic acid in an attempt to reach the light – resulting in tall, etiolated growth. The application of Primo MAXX regulates the amount of gibberellic acid produced and will help to minimise these effects, creating a denser, lower growing and healthier sward.

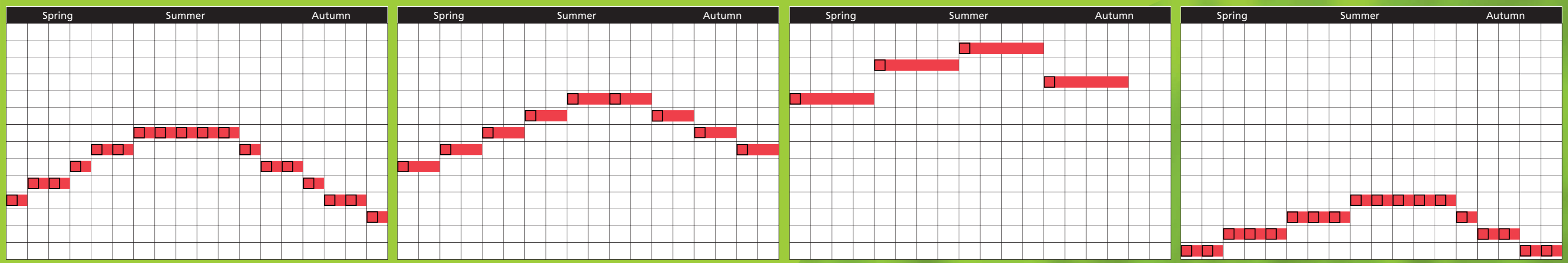


Figure 3

- Tees Expectation**
 - High quality tight and consistent surface.
 - Light regulation with sufficient divot recovery.
 - Mowing reductions is not important on tees.

How to get the best results

 - With quality the major expectation, lower rates at more regular intervals is optimal.
 - When thinking Primo MAXX on tees, think of them as an extension of your greens, to be approached in much the same manner.
 - Apply on 2-3 weekly schedule at lower end of rates suitable for specific turf species on your tees.
 - **Track** the rate over the regulation season.
- Fairways & first-cut rough Expectation**
 - High quality, tight and consistent surface.
 - Moderate regulation with extended application intervals and significant reduction in mowing frequency.

How to get the best results

 - With mowing reduction and quality the major expectations, mid-higher rates at less regular intervals is optimal.
 - Apply on 4 weekly schedule at mid to higher end of rates suitable for specific turf species on your fairways and roughs. Incorporate nitrogen and/or iron with first applications of the season (see section on Tank mixing).
 - **Track** the rate over the regulation season to ensure optimal economics.
- Bunkers and Edging Expectation**
 - High level of regulation with long application intervals and significant reduction in mowing frequency.
 - No phytotoxicity or plant death as with herbicides such as glyphosate.

How to get the best results

 - With mowing reduction the major expectations, higher rates at long intervals is optimal.
 - Apply on 6-8 weekly schedule at higher end of rates suitable for specific turf species on your bunker, flower bed and car path edges. Incorporate nitrogen and/or iron with every applications of the season (see section on Tank mixing).
 - **Track** the rate over the regulation season to ensure optimal economics.
- Greens Expectation**
 - Highest quality consistent surface.
 - Absolute product safety.
 - Must not dramatically increase the frequency of spraying.

How to get the best results

 - With quality the major expectation, lower rates at more regular intervals is optimal.
 - Apply on 1-3 weekly schedule at lower end of rates suitable for specific turf species on your greens and surrounds
 - Best results are attained when regulation is persisted with from early spring to late autumn.
 - Implement a targeted preventative fungicide and insecticide plan to assist in keeping to the regulation programme*.
 - **Track** the rate over the regulation season.

Figure 2

Approximate timing for Primo MAXX application
 Approximate Primo MAXX residual expected (3 weeks in this example)
 Approximate variations in turf species growth rates

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Balancing expectations

Primo MAXX essentially regulates the amount of available gibberelic acid in the plant. A balance thus exist between the rate of Primo MAXX used and the regulation expectation.

- The high end of label rates will have a big impact on the balance, thus expectations should be of pronounced growth regulation for primarily minimising mowing – typical use pattern for fairways, first-cut roughs and edging.
- The low end of label rates will have a lesser impact on the balance, thus expectations should be of limited growth regulation for primarily building quality through regular application – typical use pattern for tees and greens.



Figure 1

Rate Tracking

The Primo MAXX triangle (Fig 1) clearly indicates that the environment (temperature, moisture and nutrition) will dictate the potential of turf grass growth, which in turn will dictate the rate of Primo MAXX applied to keep the regulation balance.

Example: The first application should be at the low end of Primo MAXX rates, as the season progresses and the turf growth accelerates, the Primo MAXX rates can be increased accordingly (Fig 2).

Rate-tracking is an important tool for optimising the use of Primo MAXX at your course.

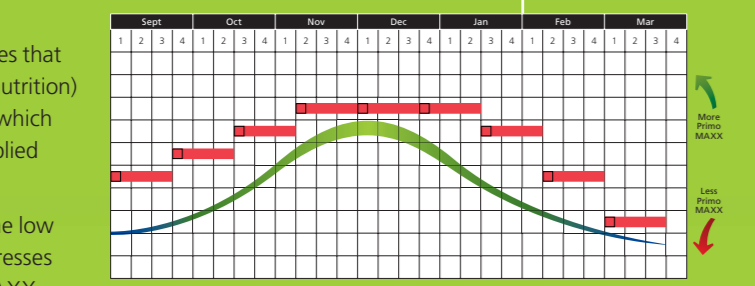


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Invitation from Syngenta

To have a customised programme developed for your specific requirements, Syngenta invites you to register on the Technical Product Advice Line on 1800 067 108.

Poa annua management on mixed species greens

The constant war on *Poa annua* as a weed in greens has been raging as long as the desire for pure bentgrass greens has been with us. Purely because of the sheer persistence of this weed, control in greens is all but impossible. Smart management is the only option and should include pre- and post emergent herbicides on tees, fairways and rough areas. The greens complex can then be managed with a range of growth regulators targeting seed production and germination timing of *Poa annua* during autumn, winter and early spring followed by strengthening the bentgrass during summer with Primo MAXX. This approach has proven effective around the world and remains the only “soft” and safe option for sensitive greens.

Positioning of Primo MAXX and paclobutrazole for optimal Poa annua reduction in bent greens (Example programme)*

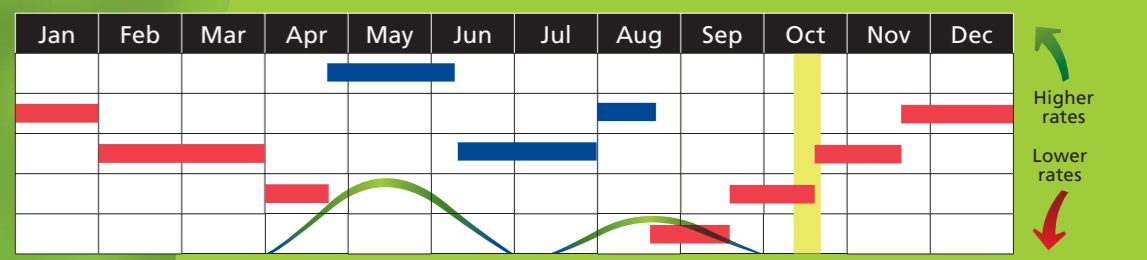


Figure 3

Primo MAXX and its effect on Poa annua

Primo MAXX will regulate *Poa annua* stronger than bentgrass at any given rate of application. It is, however, not as effective as paclobutrazole and should not be positioned as the primary product for reducing existing *Poa annua* plants. Its primary strength in this situation will be to strengthen the bentgrass, making it more competitive. Primo MAXX will not significantly suppress the formation of seedheads, the seedhead stalk will be shorter and pulled into the turf canopy, thus less visible. Alternative measures should be considered for seedhead suppression in early spring.

Primo MAXX strengthen bentgrass through late spring, summer and early autumn
 Paclobutrazole weakens or suppresses Poa annua during autumn, winter and early spring
 Spring renovations
 Poa annua seed germination

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