

Grassland and Maize Agronomy Update

APRIL 2019



Welcome to the Corteva Agriscience Grassland and Maize Agronomy Update.

With the merger of Dow AgroSciences, DuPont Crop Protection and DuPont Pioneer, this newsletter now covers maize as well as all things grassland.

These regular technical notes are a seasonal commentary to help those interested in improving grassland and forage productivity on dairy, beef, sheep and equestrian enterprises.

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Docks are nutrient robbers

The kind winter and early spring is welcome after last year's wet and cold start. Docks are growing well and will outcompete grass when nutrients and especially moisture are in short supply.

Early removal of docks gives time for grass to recolonise and ensures nitrogen and soil moisture are utilised by crop and not weeds. Early in the season, docks will show fresh new growth and will also be at a similar growth stage, which makes it easier to treat them all.

Doxstar[®]Pro has been specifically formulated to give lasting control on the docks it is sprayed on. Treatments need to be applied 3 to 4 weeks before cutting to allow for the spray to work completely, so target dock sprays a minimum of 3 weeks before cutting silage leys or 2 to 3 weeks post 1st cut.

Doxstar[®]Pro should be applied at a rate of 2 litres/ha in at least 300 litres of water. You can drop this down to a minimum of 200 litres/ha if applied via low drift nozzles. Livestock must be excluded from the treated field for at least seven days, and an interval of at least 21 days but preferably 28 days should be observed before cutting.

Follow us @CortevaGrass



NEW - Find us on Twitter **@CortevaGrass**, to find timely technical advice on agricultural grassland, amenity grassland and turf and invasive weeds.

Pioneer Rapid React silage inoculants

Pioneer proprietary silage inoculants reduce dry matter losses and improve silage quality. Understanding the benefits that come from applying the most appropriate Pioneer silage inoculant can make dramatic differences to profitability.

The popular traditional technology products – PIONEER® 1188, PIONEER® 11G22 and PIONEER® 11A44 are fully complemented by the Fibre Technology product range which includes PIONEER® 11GFT, PIONEER® 11CFT, PIONEER® 11AFT and PIONEER® 11CH4. Fibre Technology products all contain a unique bacterial strain that produces an enzyme that increases fibre digestion rates by freeing up nutrients from lignin in the cell wall.

New this year is the introduction of the Rapid React® versions of 11G22 and 11C33. In these versions, a newly registered strain is included that significantly reduces the time needed to improve silage aerobic stability after ensiling.

Benefits of Rapid React® silage inoculants:

- Enhance fermentation and deliver improved fermentation and a fermentation acid profile that minimises aerobic dry matter losses
- Available as a water-soluble product in packaging suitable for use in tank mixes or with the Pioneer Appli-Pro® systems for easy and convenient application
- Contain a unique blend of patented and/ or proprietary strains of *Lactobacillus buchneri* and *Lactobacillus plantarum* formulated to:
 - Improve silage quality providing low terminal pH and desirable Volatile Fatty Acid (VFA) profile for decreased fermentation loss and enhanced aerobic stability
 - Improve animal performance
- Includes Rapid React® aerobic stability technology. This provides more enduring aerobic stability and aerobically stable feed as soon as seven days after ensiling¹.

¹Improved aerobic stability and reduced heating is relative to untreated silage. Actual results may vary. The effect of any silage inoculant is dependent upon management at harvest, storage and feedout. Factors such as moisture, maturity, chop length and compaction will determine inoculant efficacy.

Control of flowering buttercups

Best control of buttercups is achieved if they are sprayed before flowering. Buttercups emerge in April so this is the ideal month to target them. Often, the trigger for spraying a field of buttercups is once the farmer has noticed that the field has turned a shade of buttercup yellow! Replicated Corteva Agriscience trials showed that useful control of creeping buttercup can still be obtained during flowering. However, for best overall control, pre-flowering applications of Envy® at 2.0 L/ha is preferred.



Mode of Actions	Product	Forage	Purpose
Unique Fibre Technology	11GFT	Grass and wholecrop cereal silages	Fermentation, animal performance and fibre digestibility, aerobic stability
	11CFT	Maize silage	Fermentation, animal performance and fibre digestibility, aerobic stability
	11AFT	Lucerne silage	Fermentation, animal performance and fibre digestibility, aerobic stability
	11CH4	A wide range of high dry matter silages	Aerobic stability and gas production
Traditional Technology with Rapid React	PIONEER® 11G22 RAPID REACT AEROBIC STABILITY	High dry matter grass, wholecrop cereal and pea/cereal silages	Fermentation, animal performance and aerobic stability
	PIONEER® 11C33 RAPID REACT AEROBIC STABILITY	Maize silage	Fermentation, animal performance and aerobic stability
	PIONEER® 11B91 RAPID REACT AEROBIC STABILITY	Crimped maize grain	Fermentation, animal performance and aerobic stability
	PIONEER® 1188	Grass silage below 30% dry matter	Fermentation and animal performance
	PIONEER® 11A44	A wide range of high dry matter silages	Aerobic stability

Sycamore seedlings in horse and pony paddocks

At this time of year our technical hotline receives many calls on how to control sycamore seedlings in paddocks. Some sycamore seedlings contain the toxin hypoglycin A, and ingestion can cause equine atypical myopathy in horses and ponies, a condition that can sometimes be fatal.

Although not a label recommendation, spot treatment with Grazon®Pro or a boom spray with Doxstar®Pro or the Pas®Tor® agronomy pack will give control of sycamore seedlings. Horse owners need to be aware of grazing intervals, as they may need to leave longer than 7 days if poisonous weeds are present.



Curled dock versus broad-leaved dock

Broad-leaved dock (*Rumex obtusifolius*) and curled dock (*Rumex crispus*) are both problem weeds in grassland.

Broad-leaved dock (shown below, on the left) has broad lower leaves with an elongated heart shape.



The leaves are usually at least half as wide as they are long. The flowering stems are well branched. Flowering starts in late June or July and the fruits, when fully ripe, are a reddish-brown colour and often remain in clusters on the stems.

Curled dock (shown beside, on the right) has narrower leaves, which are usually at least three times long as wide. The leaf margins are often wavy. The flowering stems are much less branched than those of broad-leaved dock and tend to be carried close to the main stem. Flowering starts in early June.

Although both species are perennials, curled dock tends to be much shorter-

lived than broad-leaved dock, and can behave as an annual or biennial in some situations with plants dying after flowering. Individual plants of broad-leaved dock can be very long-lived, especially in pastures. Both species occur in meadows and pastures. Both species produce large numbers of seeds (>25,000 per plant), which are very persistent in the soil.

Check product labels when selecting a dock herbicide. Doxstar®Pro controls both broad-leaved and curled dock, whilst some products such as Cimarron and Pinnacle only have broad-leaved docks on the label.

Labels and use on grassland

Make sure only herbicides that have a label recommendation for use on grassland are used on this crop. If it is not on the label then farmers are being miss-sold, have no backup from the manufacturer if something goes wrong and it can be an illegal application putting in jeopardy cross compliance.

Dandelions in grazing fields

Dandelion can be a troublesome weed in some grassland fields. Although dandelions are palatable to stock, they are relatively unproductive in terms of nutrition and so can reduce the overall productivity of pasture if they are present. Envy® at 2.0 L/ha is a good option for dandelion control. As with buttercups, best control is achieved with a pre-flowering treatment. If docks are also present, then use Doxstar®Pro at 2.0 L/ha.



Target ragwort control at rosette stage

Ragwort is one of the most frequent causes of plant poisoning of livestock. It is responsible for over 90% of the complaints on injurious weeds in the United Kingdom.

Livestock will not usually eat ragwort while it is growing, but when it has been cut and has wilted it becomes much more attractive and palatable.

Cutting ragwort just encourages new and vigorous regrowth and the dying plants pose a great danger to livestock.

Cultural control of ragwort by cutting, digging out or puling is often ineffective.

Chemical control with MCPA and 2,4-D gives some control on young plants but performs poorly on late rosettes or flowering plants. The best long-term control of ragwort is achieved from Forefront®T applied to actively growing rosettes.

It is essential to ensure all remains of the ragwort plants have completely decayed or are removed before re-introducing grazing animals. Remember that Forefront®T is not permitted for use in pony paddocks due to manure stewardship requirements.

Leystar® maize extension approval

The application to extend the timing for use on maize has been authorised by the Chemical Regulations Division (CRD). The product may now be applied up to 'Before 7 leaves unfolded and before 30 June'. The new Notice of Authorisation incorporating the new use is published on the CRD website. This supersedes previous notices and existing labelled product may now be used with the new recommendation. There is no MAPP number change.

Weed competition at the early stage of a maize crop can significantly affect its potential. Leystar® will control many broad-leaved weeds that emerge post sowing, including black nightshade, bindweed and knotgrass.

- Apply to maize between the third and sixth leaf stage and before the crop is more than 20cm tall. It must not be applied once the buttress roots have started to develop on the first node.
- Grass can be sown after the maize has been harvested within the year of treatment with no adverse effect.
- The dose rate is the same as for new sown leys at 1 litre/ha applied in 200 litres/ha of water.
- Cereals and cereals undersown with grass are being added to the Leystar® label shortly, making Leystar® an even more useful solution for livestock farmers who have several crops including grass in rotation.
- No tank mixes permitted with other sulphonylurea (SU) herbicides at present.

Ask a question

Q Is control of bulbous buttercup similar to that of creeping buttercup with Envy®?

A Envy® gives good control of both meadow and creeping buttercup. There is less information on bulbous buttercup as this species is less common, but control is slightly less on this species.

Q What is the grazing interval for poultry with Corteva Agriscience grassland herbicides?

A Grazing interval after application of Corteva Agriscience grassland herbicides is just seven days for all livestock, including poultry.

BASIS Certificate in Crop Protection (Grassland and Forage Crops)

The BASIS Certificate in Crop Protection (grassland and forage crops) is ideal for those focused on the livestock sector and enables holders to give bespoke advice to farmers seeking support.

Visit BASIS to find out further details for courses being run in England in 2019.

SRUC – Scotland's Rural College is scheduling various activities as outlined to the right.

For more information see <http://www.sruc.ac.uk/basis>, phone Martin Richards 0131 535 4081 or email moyra.farquhar@sruc.ac.uk

29 May	Crop Walk
1-3 October	Agronomy (Grass and Forage) Course
4-5 November	Agronomy (Cereals) Course
20 November	Crop Walk
20-24 January	Safety Course
12 February	Crop Walk
27 May	Crop Walk
25-26 February or 9-10 June	Revision Day and Exams

Show dates.

The technical team from Corteva Agriscience will be out and about at many shows and events this year, talking to farmers and agronomists and answering questions on maize hybrids, silage inoculants and how to tackle weed problems in their fields. Catch the team at any of the shows listed here.

Earn BASIS Points.

2 BASIS points (1 crop protection and 1 personal development)



will be awarded to those subscribing to Grassland and Maize Agronomy Update.

Please include course name 'Grassland Agronomy Update' and ref number: CP/67615/1819/g, on your training record.

These details are valid until 31st May 2019.

May 15th	Scotgrass www.scotgrass.co.uk	Crichton Royal Farm, Dumfries
May 21st	NSA Welsh Sheep www.nationalsheep.org.uk/events	Glynllifon College, Part of GRWP Llandrillo Menai, LL54 5DU
May 23rd	NBA Beef Expo www.nationalbeefassociation.com	North West Auctions, J36 Rural Auction Centre, Milnthorpe, Cumbria
May 30th	Scotland's Beef Event www.scottishbeefassociation.co.uk/scotlands-beef-event	North Bethelnie Farm, Oldmeldrum, Aberdeenshire, AB51 0AN
June 5th	NSA North Sheep www.nationalsheep.org.uk/events/	North Hall Farm, Rathmell, Settle, North Yorkshire, BD24 0AJ
June 6th	Royal Welsh Grassland Event www.royalwelshgrasslandevent.com	Cardeeth Farm, Carew, Pembrokeshire, SA68 0TS
June 18th	NSA Sheep South West www.nationalsheep.org.uk/events	Southcott, Burrington, Umberleigh, Devon, EX37 9LF

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For further information please contact the Corteva Agriscience technical hotline on 0800 689 8899 or UKHotline@corteva.com or go to www.corteva.co.uk/grassland

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USE PLANT PROTECTION PRODUCTS SAFELY. Always read the label and product information before use. For further information including warning phrases and symbols refer to label.

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Doxstar® Pro contains fluroxypyr and triclopyr. Envy® contains fluroxypyr and florasulam. Forefront® T contains aminopyralid and triclopyr. Grazon® Pro contains clopyralid and triclopyr. Leystar® contains fluroxypyr, clopyralid and florasulam. Pas®•Tor® Agronomy Pack contains clopyralid, fluroxypyr and triclopyr. Thistlex® contains clopyralid and triclopyr.