Grassland and Maize Agronomy Update

MAY 2019







Welcome to the Corteva Agriscience Grassland and Maize Agronomy Update.

Welcome to the Grassland and Maize Agronomy Update from Corteva Agriscience. 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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May/June is the ideal time to spray thistles. Thistles tolerate dry conditions and will outcompete grass for any residual moisture. They prevent animals grazing all the grass in a field and are thought to help spread orf, a highly contagious viral disease of sheep.

Cutting thistles is only a temporary solution, especially with creeping thistles as they produce more stems from buds running below ground after cutting.

Options for spraying thistles:

Where thistles dominate, spray with Thistlex® using a tractor mounted or self-propelled sprayer. Thistlex® will also control nettles.

If the area taken by the thistles is less than 5%, spot treatment with Grazon®Pro will be more cost effective. If a broader range of weeds is involved, use the Pas®·Tor® Agronomy Pack.

All these products will take out all species of thistles, including spear, creeping and marsh. Tackling them now reduces the amount of new plants that will germinate from seed this year.

Spraying docks after first cut.



It's likely that many farmers will want to treat docks after silage cutting. Spraying a couple of weeks after firstcut is an excellent opportunity to get good levels of control.

If using a spray contractor, make sure

they are booked in to apply a spray 2-3 weeks after silage cut is taken, as by then dock regrowth should be at the ideal stage for control, with fresh green leaves and all at a similar growth stage (dinner plate sized), ideal for taking up a translocated herbicide. Treating at this time means there will be less grass too making it easier to hit the target plants.

Translocated herbicides such as Doxstar®Pro need a minimum of three weeks to get right down into the roots to give thorough long-term control, so apply in plenty of time before second silage cut is made. Where docks are present, weed control is a small cost relative to the gain in extra grass and silage produced. If cutting takes place earlier e.g. around 14 days, then short term control is unlikely to be affected but the likelihood of having to undertake a follow up spray the following year is increased.

Doxstar®Pro is very safe to grass - this is still top of the concerns for grassland farmers who spray herbicides.

Eliminating Ragwort.

Ragwort contains a toxic alkaloid, which when grazed over a period of time affects an animal's liver. Horses need only to eat 4–8% of their bodyweight for it to be fatal. Cattle are more susceptible than sheep, while pigs and chickens are also sensitive. Once cattle and horses have consumed a fatal dose – probably about 3kg of fresh plant material for an adult, there is no known antidote.

Stock will not usually eat ragwort while it is still growing, but when it is cut and wilts it becomes more palatable. It is a problem in fields to be cut for hay or silage, where its toxicity remains and can contaminate the entire clamp.

Where ragwort plant numbers are low and the soil is moist, digging the plants out by hand (wearing gloves) is an option. All the pulled material must be removed from the field before the animals are let back in

For larger infestations in cattle and sheep grazed pastures, where application is via tractor-mounted or self-propelled sprayer, very high levels of control can be achieved with Forefront®T. This should be done before flowering when the ragwort plants are still at the rosette stage.

Stock should be excluded from treated areas until any ragwort has completely recovered or died and there is no visible sign of the dead weed. Do not include treated ragwort in hay or silage crops.



Pasture rejuvenation with Forefront® T.

There is an alternative to re-seeding pastures where grass has lost out to weeds. If you have permanent grazing pastures and challenging weed populations but can't reseed, then the next best option is Forefront[®]T which has a fantastic capacity to transform weed infested grassland.



Forefront®T delivers the highest levels of control of a wide spectrum of agriculturally important weeds. It moves to the roots of the weeds to ensure high levels of long-term control but is very safe to grass. It gives outstanding control of docks, thistles, nettles, dandelions, creeping buttercups and ragwort.

Forefront®T can only be used on ground that is grazed by cattle and sheep, which can return seven days after treatment or when the foliage of any poisonous weeds such as ragwort has died. If it is a grass field that you want to make silage or hay from, then you will need to do that first and apply after the last cut has been made and weeds have regrown to a size suitable to treat.

When recommending Forefront®T be sure to have downloaded the Corteva Grassland App and use the stewardship feature to convey to your farmer clients the stewardship requirements. Call our Technical Hotline if further guidance is needed.

Inoculants for whole crop silage.

Pioneer have three inoculants for treating whole crop cereal forages:

- 11A44 reduces aerobic spoilage only
- 11G22 RR reduces aerobic spoilage and improves fermentation quality
- 11GFT reduces aerobic spoilage, improves fermentation quality and improves fibre digestion

Most farmers will treat any whole crop cereal silage they make because it is very prone to aerobic spoilage. You should begin considering what additive to buy in late May/early June as you decide whether to harvest cereal crops for grain or silage.

All of the above Pioneer brand inoculants contain proprietary strains of Lactobaccilus Buchneri that have been proven to dramatically reduce heating in whole crop cereal silages by suppressing yeasts and moulds.

The new Rapid React (RR) formulation of 11G22 contains a faster acting strain of L. Buchneri. Whole crop cereal silages

made with 11G22 RR should be aerobically stable from as little as 10 days after ensiling. 11A44 and 11GFT do not contain this new strain and the full aerobic stability effect from these products will normally be achieved from 3 to 6 weeks after ensiling.

Key features of Pioneer brand inoculants containing L. Buchneri:

- Reduce dry matter losses compared with untreated control silages
- Biological solutions without the health risk associated with applying acids and acid salts
- Can reduce yeasts and moulds to just
 0.1 % of untreated control silages
- Maintain aerobic stability in cereal whole crop silage for longer than silages treated with proprionic acid

A Canadian feeding trial study showed that beef cattle fed a diet of whole crop barley silage treated with 11GFT had superior feed conversion efficiency compared to those fed untreated silage.

Why some weedy grass fields don't get sorted!

Independent market research identified the reasons why livestock farmers who had weed problems on their farm, but had not taken any action to remedy them.

Four areas were highlighted:

- Uncertainty as to which products would perform best and deliver a level of lasting control
- Safety concerns were mentioned with respect to grass, clover, the environment, the animal, and the spray operator
- **3.** The cost of the spray and application were thought to be high relative to the amount of extra grass gained
- 4. Time was an issue. It was not always possible to get the sprayer out or a contractor in when weeds were at the optimal time to treat.

Addressing these areas with potential clients will help you help them to rethink their approach and improve their productivity.

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Pioneer Business Club Brand Bonus.

Farmers who have already purchased maize seed may already qualify for a Brand Bonus payment on any silage inoculants they buy. Or a Pioneer Brand silage inoculant purchase may qualify them for a payment or even push them into another Brand Bonus band.

Maize weed control with Leystar®.

Leystar[®] has approval for postemergence weed control in maize. The dose rate is 1.0 L/ha and it can now be applied to maize up until 30 June.

Leystar® combines clopyralid, fluroxypyr and florasulam making it a very wide broad-spectrum herbicide. It should be applied when the forage maize is between the three and six leaf stage and before the crop is over 20cm tall. It must not be applied once the buttress roots have started to develop on the first node.

Annual weeds that will be controlled include black nightshade, black bindweed, charlock, chickweed, cleavers, fat hen and mayweed

No tank mixes permitted with other sulphonylurea (SU) herbicides at present.



Late May /early June is the perfect time to control weeds appearing in cereal and brassica game cover crops. Weed control in game cover crops can be tricky, as there is usually a mix of desired game cover plants, and potentially a lot of target weeds all growing up together.

Broad spectrum treatments, such as Dow Shield®400, control a wide range of weeds without harming the game cover species such as kale, maize, millet, miscanthus, phacelia, cereals and stubble turnips. Buckwheat, quinoa and sorghum can suffer some crop damage, but any damage will be slight and certainly the cover crops should recover.

Where thistles are the main problem weed in game cover crops, spraying Thistlex® at 1 L/ha will control them well.

Several Corteva Agriscience products have Extensions of Authorisation for Minor Use (EAMU) approval in game cover. These are:

- Dow Shield® 400
- Kerb® Flo
- Starane® Hi-Load
- Starane® XL
- Thistlex®

See https://www.corteva.co.uk/tools-and-advice/stewardship/game-cover.html for further information.

Woody weeds.

June through to August is the ideal time to target woody weeds such as bramble, broom and gorse (whins) with Grazon®Pro. The plants should be sprayed when actively growing, with good leaf cover, and before they begin to die back in the autumn.



Weedy pony paddocks.

All too often, weeds in pony paddocks grow beyond an ideal treatment size and end up getting left or topped which is added expense and doesn't get rid of stubborn perennial weeds such as nettles, docks and thistles.



The dry conditions of last year have resulted in more tired paddocks this spring where weeds will be a bigger threat than normal. The mild winter has meant weeds and grass have started growing earlier this spring. Weeds are now beginning to get to an ideal size to treat with a herbicide.

Envy® is a good solution for pony paddocks. It gives high levels of control of a broad range of weeds such as buttercup, dandelion, chickweed, plantain, daisy and dock, but is very safe to the grass, and has a short grazing interval of just seven days. Further, its use does not result in any herbicide residues in manure.

Aminopyralid online training reminder.

Forefront[®]T is the most effective grassland herbicide controlling all the key grassland weeds to a very high level.

Interest in its use has grown significantly in recent years so it is important to keep up-to-date on the stewardship requirements of this product. To make this effort easy we have created an online training module.

This course explains some recent updates to the Corteva Grassland App which will simplify the supporting stewardship effort.

If you are a BASIS Crop Protection qualified advisor who has not previously recommended Forefront®T or who has, but not used the Grassland App, then please email david.gurney@corteva.com for more information and login details.

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 and send to linda@basis-reg.co.uk

These details are valid until 31st May 2019.

Win the Corteva Quad.









Ask a question

What level of control will I get if I spray buttercup in flower?

Best control of buttercups is achieved if they are sprayed before flowering. However, our replicated trials showed that useful control of creeping buttercup can still be obtained during flowering. Although our grassland herbicides are not harmful to insects, If spraying during flowering, follow good agricultural practice by timing sprays for early morning or late evening when pollinators are less likely to be active. However, for best overall control, pre-flowering applications of Envy® or Forefront® T both at 2.0 L/ha are preferred.

Will Envy® control plantains in pony paddocks?

In warm weather plantains can wax up, and the level of control from Envy® can be reduced, so for increased control consider adding 2,4-D.



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.

website for full T&Cs.

May 30th	Scotland's Beef Event www.scottishbeefassociation.co.uk/ scotlands-beef-event	North Bethelnie Farm, Oldmeldrum, Aberdeenshire, AB51 OAN
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 OTS
June 18th	NSA Sheep South West www.nationalsheep.org.uk/events	Southcott, Burrington, Umberleigh, Devon, EX37 9LF

For regular updates on agronomic issues, find us on Twitter: twitter.com/CortevaGrass and Facebook: facebook.com/cortevauk

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



Discover more at corteva.co.uk