



Grassland and Maize Agronomy Update

June 2020



Welcome to the Corteva Agriscience™ Grassland and Maize Agronomy Update.

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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Thistles

Thistles are a group of flowering plants characterised by having sharp prickly leaves and stems, which are an adaptation to prevent the plant from being eaten by herbivores. Legend has it that the thorny thistle once saved Scotland from a marauding Norse army, a feat that earned this tenacious plant its status as a Scottish national symbol. There are over one hundred and fifty species of thistles worldwide, with over fourteen species growing wild in the UK mostly from the *Cirsium* (plume thistles) and *Carduus* genera.



The two most common and damaging species to UK agriculture are creeping thistle (*Cirsium arvense*), and spear thistle (*Cirsium vulgare*). Creeping thistle

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is a perennial that grows from seed or from root fragments in the soil. Once established, the root mass can be greater than the plant above ground, competing effectively with the grass. It produces dense spines on its leaves, but very few spines or hairs on the flowering stems. Spear thistle is a biennial that grows from seed, and in the first year often goes unnoticed, since it produces only a small rosette. In the second year the plant can grow to over a metre in diameter before flowering, posing a serious economic threat. Spear thistle has large, deeply-lobed leaves with large spines at the margins, as well as hairy, spiny stems.

Marsh thistle looks similar to spear thistle, but without the large spines and leaf lobes, and usually with a thin, red, leaf margin.



Other thistle species include marsh thistle (*Cirsium palustre*) which is common on damp ground such as marshes, wet fields, moorland and beside streams.

Musk or nodding thistle (*Carduus nutans*) is common on pastures and disturbed ground. Carlina thistle (*Carlina vulgaris*) is a spiny biennial plant with yellow/brown flower heads, which can be found on dry, chalk grassland. Woolly thistle (*Cirsium eriophorum*) is easily identifiable with large, deeply-lobed, evenly-shaped leaves, and very large flower heads, wrapped in a 'cobweb' of cotton-like hairs. It is usually found on calcareous ground.

Thistlex Extension of Authorisation for Minor Use (EAMU) for game cover

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.

Thistlex® has an EAMU for use in game cover crops and can be used in a range of cereal/maize/brassica type game cover crops, although there are some crop types that should be avoided, notably: chicory, sunflowers, artichokes and leguminous crops.

EAMUs are granted only in relation to a particular product for specific uses. It is an offence to use an approved product in a manner that does not comply with the specific conditions of approval that

is laid down in the statutory Appendix 1 "Conditions of Extension of Authorisation" of the EAMU. To demonstrate compliance with such terms, a user must have read and understood the document before commencing spraying operations. Possession of a current EAMU document is generally taken as part of the "burden of proof" of this requirement. Only the original EAMU document, held by the Chemicals Regulation Directorate ("CRD"), constitutes a valid legal document.

No reliance should be placed on an EAMU by a user in relation to products which, although similar to an approved product, are not expressly covered by the EAMU.

Why control thistles

- Facilitate the spread of Orf
- Reduce the area of grass available for grazing (up to 0.5m² per plant)



Herbicide options for thistles

- Where thistles dominate, spray with **Thistlex®** using a tractor mounted or self-propelled sprayer. **Thistlex®** controls all species of thistles.
- If the area taken by the thistles is less than 5%, it is more economical to spot treat with **Grazon® Pro**.
- If a broader range of weeds are present, use the **Pas®-Tor®** Agronomy Pack.

Pas®·Tor® Agronomy pack

The **Pas®-Tor® Agronomy Pack** is the best solution where there is a mixed weed population of docks, thistles and nettles, and where the use of Forefront T is not appropriate e.g. silage / hay ground. Each pack contains a 2 litre bottle of Pas and a 2 litre bottle of Tor. Each agronomy pack treats 2 ha, offers excellent selectivity. Both components have the same LERAP and grazing and cutting intervals, making application simple.



Forefront® T Stewardship

A reminder that if recommendations are made for [Forefront® T](#), **ALL** stewardship records **MUST** be reported via the Corteva grassland app. Please ensure all records are kept up to date.



Forefront T stewardship training

The [Forefront® T](#) online training module is an easy-to-use online course for:

- BASIS Crop Protection Certificated Agronomists (Full or Grassland) who already advise on the use of this product
- BASIS Crop Protection Certificated Agronomists who are interested in advising on Forefront T use for the first time

The course offers an opportunity to learn/refresh knowledge, and to earn 2 BASIS Points at a convenient time. Anyone who completed the course and claimed BASIS Points in the 2019/20 points year can re-take the course and claim again for the 2020/21 points year. The course will take experienced Forefront T Advisors up to 35 minutes to complete. Those wishing to become Forefront T Advisors for the first time should allow an additional 10-15 minutes.

Anyone who has not received an invite can email [david.gurney@corteva.com](mailto: david.gurney@corteva.com) and ask to be added to the course.

Hay Crops

[Forefront® T](#) is for use on grassland for cattle and sheep grazing. If hay or haylage has inadvertently been made from a field treated with Forefront T, the hay/haylage and any resulting manure must remain on the farm of origin. Please check / remind farmer clients to abide by this requirement.

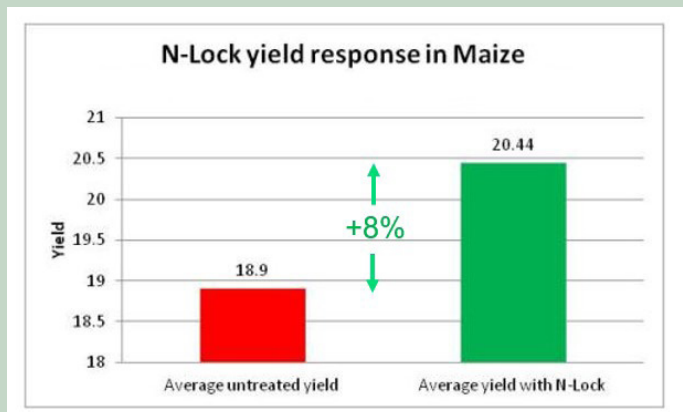


N-Lock™ & Maize

It's well known that maize requires a significant amount of nitrogen later in its life. The challenge is how to do this. One solution is to use a product such as [N-Lock™](#) which contains [Optinyte™](#). Optinyte™ is the world's leading nitrification inhibitor and its use is growing in the UK.

Optinyte™ technology slows the conversion of ammonium to nitrate, thereby preventing nitrogen loss through leaching and denitrification. Trials have shown a 50% reduction in these losses following the use of Optinyte. The consequence is that more nitrogen is kept in the soil for longer, and for a crop such as maize, this is significant.

Yield improvements of 8% have been seen in maize, as illustrated in the graph on the right.



If you haven't thought about protecting your nitrogen with [Optinyte](#) – perhaps it's time. It's good for you, and the environment.

Spot treatment of weeds

June through to August is the ideal time to target woody weeds such as bramble, broom and gorse (whins) using a spot treatment 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.



Fat-hen control in new-sown leys and maize crops

Fat-hen is a common weed in new sown leys and maize crops. Where the [Leystar[®]](#) is being used for weed control in these crops, be aware that fat-hen is not a label weed and that control of fat-hen is variable and not complete. Some control may be seen in small fat-hen (up to two leaves).

Grassland App

The Corteva grassland app is available on iPhone (iOS) and Android platforms as well as a web-based version. The latest version of the app (3.6) requires iOS version 12.4.6 or Android version 9 or above to run. If the phone or tablet device cannot run the minimum operating systems required please use the web version of the app at <https://grassland.farming.co.uk/> to ensure you have access to the most recent version. The web version can be accessed on a device browser or on any PC/laptop – Chrome browser is recommended.

Invasive weeds

Invasive alien plants are recognized worldwide as one of the major threats to biodiversity. As well as altering the environment, invasive weeds can have adverse economic and social effects such as a reduction in land value, reduction in crop yield or quality, damage to infrastructure, and implications for human and animal health.

Invasive non-native plants are species which have been introduced to the UK that can outcompete the UK's native flora. Land occupiers have a responsibility to prevent any of these plants on their land from spreading on to a neighbour's property. Invasive species such as Japanese knotweed, Himalayan balsam and giant hogweed are listed under schedule 9 to the Wildlife and Countryside Act 1981. Under the Environmental Protection Act 1980, Japanese knotweed and giant hogweed are classified as controlled waste.

For further information on controlling invasive weeds see the [Corteva Agriscience Invasive Weed Control Leaflet](#).



Improving poorer quality pastures / paddocks

[Envy[®]](#) is an excellent value solution for:

- Livestock farmers seeking control of weeds such as buttercups, dandelions, daisies and docks in less intensively managed pastures
- Horse owners wanting to secure more grazing or tidy up weed infested paddocks
- For broadleaved weed control in new sown leys where thistles are not a problem (if thistles are a problem, use [Leystar[®]](#))

Given the time of year and weed growth stage, it is probable that for established grassland, and for optimal control, topping will be required and Envy applied 2 to 3 weeks to the newly emerged regrowth



Update on Wholecrop Silage Inoculants



Forage Stocks:

The dry weather over the last couple of months has provided ideal conditions for harvesting grass silage but poor conditions for grass growth. Consequently first cuts have been of good quality but low in yield. There is currently a potential shortfall in forage stocks, so farmers may be considering conserving a greater tonnage of wholecrop cereals to offset the shortfall.

There has been a significant increase in the area of spring barley planted as a result of the wet autumn. With barley currently trading at £120 a tonne ex-farm, arable growers might be interested in offers to take the crop for silage.

Pioneer silage inoculants optimise the feeding value of wholecrop cereal silage by:

- Reducing heating during feed-out by inhibiting the growth of yeasts that are the cause of heating at the silage face.
- Improve the efficiency of the fermentation process
- Enzyme activity that increases forage digestibility

Selection of the most appropriate silage inoculant:

The selection of silage inoculant needs an understanding of benefits that are sought. The flowchart below outlines the most appropriate Pioneer Brand inoculant dependent on the specific harvesting challenges encountered.

Wholecrop silage

Extreme Heating Challenge:

- Slow feed-out
- Lack of compaction
- Long chop length
- Summer feed-out
- Higher dry matter range



11A44

Reduces aerobic heating

Fermentation Challenge:

- Arable mix with pulses or clover
- Where under-sown grass is dominating the mix
- Lodged crops with potential soil contamination
- Feeding to commence a week after ensiling



11G22

Reduces aerobic heating & fermentation losses

Moderate Heating Challenge:

- Typical feed-out rate
- Short chop
- Good compaction
- Winter feed-out
- Lower dry matter range
- Highest forage quality



11GFT

Reduces aerobic heating, fermentation losses & improves digestibility

Ask a question

Q Do any Corteva grassland herbicides have approval as a weed wiper?

A No Corteva grassland herbicides currently have approval for application through a weed wiper.

Q What interval should be left between applying a grassland herbicide and liquid fertiliser?

A Leave an interval of at least five days before applying liquid fertiliser.

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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/100772/2021/g, on your training record and send to:

linda@basis-reg.co.uk

These details are valid until 31st May 2021.

The BASIS logo features the word "BASIS" in a bold, green, sans-serif font. The letter "i" is lowercase and has a yellow dot above it.

For regular updates on agronomic issues, find us on Twitter: <https://twitter.com/CortevaForage> 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 or download the Corteva grassland app available on [apple](#), [android](#) or [web version](#).

Discover more at corteva.co.uk

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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