



Cereals: protecting your investment

In this issue

As cost of production per tonne rises, successful crop establishment is essential to ensure that profits rise too. As growers prepare for autumn drilling, technical support manager Christine Lilly and seed commercial assistant Chris Piggott explain how seed treatments and effective grass weed control can make huge differences to final crop quality and yields.

Seed treatments are one of the most economic ways to apply crop protection to any crop. With grass weed control and the limitations of tank mixing increasing workload pressures, they are a useful option for beginning a fungicide strategy. They can also be used for effective control of pests, viruses and soil borne diseases, removing the need for another pass in which foliar product options may impact beneficial species.

Establishment of the crop is key and placing a growth promoter on the seed with a mix of macro and micro nutrients, such as Prosper ST, encourages root development in young plants and their ability to access early nutrition. This improved root development also has the added benefit of mediating situations where rooting is under pressure, for example in areas of compaction or lighter soils where rooting is more limited. This leads to a healthier, more disease resistant plant.

Cereal crops drilled in all but the very latest drilling slots will also benefit from prothioconazole + clothianidin (Redigo Deter). BYDV continues to pose a risk and this has been exacerbated by some restrictions on pyrethroid buffer zones and resistance becoming more widespread. Assuming a seed rate of 150kg/ha, Redigo Deter will provide 8 weeks protection from aphid virus transmission without the cost and time associated with foliar insecticide applications. Trials have shown that, compared to a foliar programme, a significant yield increase of around 2t/ha is possible when using Redigo Deter under infection pressure throughout September and October drilling. Redigo Deter also deters slugs on slow emerging plants from germination to emergence, again without the buffer zones that are in place for pelleted control options. It does need to be drilled prior to 31st December however, as there is no approval for its use after this.

Seed treatments for rotational positioning are also a useful tool for growers. In second and third cereal situations, take-all risk is dramatically increased but can be mitigated with the use of

silthiofam (Latitude). This is especially important when the risk is increased by other factors such as higher seed rates and a shorter period between ploughing and drilling. If take-all risk is considered to be lower, other options can provide more limited control but with additional benefits.

Fluquinconazole based treatments (Galmano or Jockey) will help control take-all when applied at a higher rate, though to a lesser degree than Latitude. Adding fluquinconazole to the seed also gives early protection against rusts, septoria and fusarium. Some of the highest yielding varieties, such as KWS Santiago, Reflection, and KWS Kielder, suffer from a yellow rust weakness, likely due to sharing Oakley as a parent. Using a fluquinconazole treatment delays the infection cycle and assists with the efficacy and timing of subsequent fungicide applications. As eradicant activity in fungicides usually comes from higher rates or stronger products, usually at greater cost, this is a cost effective option.

Manganese can be used as a seed treatment for a variety of reasons. Formulation is important as plant available manganese is required for early uptake; Mn-Tain is a true liquid manganese nitrate solution which is available immediately, whereas uptake of manganese carbonate is typically slower. Mn-Tain is also compatible for co-application with other seed treatments. Applied to the seed in known manganese deficient situations, it will give young plants access to the nutrient before foliar applications would be possible. This encourages a more resilient plant which can resist disease and cope with adverse situations, which is especially important in barley due to its lower ability to compensate after tiller loss in cold conditions.

“Establishment is key to securing the success of a crop. Trials have shown that by using treated seed, a significant yield increase of around 2t/ha is possible.”

Chris Piggott
Seed Commercial Assistant



Cereals: protecting your investment

To ensure the right treatments are applied where they are needed and get your crop off to the best possible start, thorough discussion and advice from an expert agronomist, accompanied by comprehensive soil analysis, is essential.

Successful grass weed control

Cultural measures are now the first port of call for controlling grass weeds in cereals. Cultivation choice starts immediately after the previous crop has been harvested.

Black-grass has been less of an issue for many growers this season than in previous years, but if it has been poorly controlled in the previous crop, ploughing and fully inverting the soil may be the best option. This is most likely to be successful if the field has not been ploughed for several years. Other options are partial inversion to create a stale seed bed or direct drilling. The latter should not be in isolation; use raking to encourage black-grass to germinate and to remove any thick areas of chaff. Cultivating to less than 5cm will encourage germination and not disturb seed from depth.

Drilling date will also influence black-grass numbers in the crop. Drilling in early to mid September should only be practised where grass weeds are not expected to be present. Mid to late September drillings where numbers are likely to be low is possible but delaying to early October is still preferable. The earlier drilling window should only be used if seed bed moisture is present and a good seed bed can be created to give pre-emergence herbicides every opportunity to work. Where black-grass population has been high, drilling should wait until mid October.

With herbicide programmes costing £140/ha or more, getting the best possible value from them is important. Pre-emergence herbicides will work better when:

- conditions are cooler
- soil moisture is present at application and remains after application
- they are applied pre-emergence of the weed
- soil is consolidated and free from large clods.



“With herbicide programmes costing £140/ha or more, getting the best possible value from them is important.”

Christine Lilly
Technical support manager

Dry conditions affect herbicides in different ways. Flufenacet and diflufenican are most affected by dry conditions, tri-allate the least and pendimethalin in the middle.

Flufenacet remains the key active and should be the starting point. There are now a number of ways to deliver this; as a co-formulation with either diflufenican + flurtamone or pendimethalin, such as Vigon, Crystal or Liberator, or as a straight in System 50. In virtually all cases, these products will need to be partnered and sequenced with other actives to achieve the best grass weed control possible, for example Vigon + Omaha2 (provides additional pendimethalin + diflufenican).



Black-grass above the wheat & well in flower

Tri-allate is now becoming much more widely applied, used on approximately 500,000ha nationwide, but growers should ensure that machines are calibrated and tested as liability lies with the grower and the machinery supplier. Evidence of narrow strips of black-grass in some fields last season indicated under dosing and that machines were not operating at optimum levels.

Tri-allate forms a chemical barrier that weeds have to grow through, so application needs to be pre-emergence of the weed. To ensure crop safety, growers must drill crops at 4cm consolidated depth for wheat, triticale and rye, and a minimum of 2.5cm for barley. For direct drilled crops, it should not be applied pre-emergence of the crop. Remember that the operator has to be suitably qualified to apply Avadex granules.

Always bear in mind any statutory or advisory limits on active substances when applying herbicides; for example, do not exceed more than 1320g/ha pendimethalin at any single application or more than 2000g/ha in a season. For diflufenican, 125g/ha would be an advisory limit to ensure safety for any following broadleaved crop, such as oilseed rape.



Mind your Ps and Ks

With current commodity prices focusing attention on costs, P and K nutrition is an area often considered for cuts. National crop nutrition technical manager Edward Downing reminds growers of the importance of good phosphate and potash management and demonstrates the potential risks posed by this decision.

Yield response

Phosphate and potash fertiliser are said to feed the soil and replace removed nutrients, but while this is essentially true, their role is more important than this suggests. A 2014 OSR trial showed a 0.76t/ha yield response from an application of 166kgs/ha of DAP on soil with a reasonable phosphate level. At current prices, that's a return over costs of £140/ha. That magnitude of response may not occur every time, but this shows the potential value of fresh P and K fertiliser.

What are the ideal soil levels for P & K?

In arable and grassland rotations (except vegetables), standard industry advice has long been to manage soils at index 2 for P and 2- for K, or moderate (M) for P and lower half of moderate (M-) for K in Scotland. Recent HGCA research has revisited this, but with yield loss starting right at the top of index 1 and increasing dramatically at index 0, this is clearly still the right strategy and no changes have been suggested.

How should soils be managed?

Soil samples of every field must be taken every 3-4 years. Making plans is impossible without this information and you could be over or under applying. Mapping fields using SOYL's precision nutrient management service will give an even more detailed insight into the soil's status. Once soil levels are known, it's simply a case of applying what the previous crop has removed, plus any extra to build soil indices if they are below target, or reducing if above.

How do you know what effect the previous crop had?

Use the Fertiliser Manual (RB209, p228) to multiply your crop yield by the given figures. Alternatively, the [PDA calculator app](#) clearly separates the nutrients required for replacement and those to be added for building the index, based on your start level and how quickly you want to reach target. A further benefit of the SOYL service is using combine yield monitor data to bring precision accuracy to these crop removal calculations.

Do previous harvests have an impact?

There have been some excellent yields over the last two years. This is great but has a big influence on nutrient removal; for

example, the standard P and K application figures for wheat in RB209 are based on a national average yield of 8t/ha, whereas a 12t/ha crop with straw baled would remove an extra 34kgs/ha P and 42kgs/ha K. Growers need to be sure to use the right removal figures for their fields.

Straw is also a factor, as most is removed: 72% of wheat and 93% of barley. The extra nutrients this removes needs to be accounted for too, especially for potash; a 10t/ha wheat crop produces around 5t/ha of straw, removing 6kgs/ha P and 48kgs/ha K. To give that context, 100 hectares = 500t straw = 1000 big bales = 8t MOP and 1.3t TSP.

What about organic sources of P & K?

Many materials containing P and K are available, but it is important to understand them before buying what appears to be a cheap option. Livestock manures, for example, provide high quantities of readily available P and K, while other materials give nearly zero, relying on reactions in the soil before they become available to crops.

How is nitrogen efficiency affected?

Nitrogen uptake can be greatly influenced by soil's potash levels. Rothamsted Research studies showed N use efficiency was 79% at the target K index 2-, but fell to 49% at index 0. That means 30% of the N applied was wasted; a serious financial and environmental loss.

In the last 15 years, P and K use has reduced by 50%. This is partly because of better management of organic manures and optimised applications through precision agriculture, but restricted yields due to inadequate P and K is a significant risk. The latest report by the Professional Agricultural Analysis Group (PAAG) shows 29% of soil samples below target index 2 for phosphate and 34% below the target index 2- for potash.

We must keep maximising crop yields and good management with fresh applications of P and K play a pivotal role in achieving that.

"We've had some excellent yields over the last two years, but this has a big influence on nutrient removal. Getting the P and K levels right is vital in delivering future yields."



Edward Downing
National Crop Nutrition Technical Manager

Managing metaldehyde: how to meet stewardship requirements and reduce slugs

With active ingredients being routinely detected in raw water supplies, the agriculture industry in particular is under increasing pressure to take action. Slug pressure is a constant challenge, but despite the apparent contradiction in metaldehyde use, there is a happy medium. National technical and development manager Stuart Hill explains how to achieve it.

The Water Framework Directive is legislation designed to ensure all water bodies achieve 'good' status by 2027 at the latest. The mechanism for achieving this is through the implementation of a series of River Basin Management Planning cycles (RBMP). The first round of RBMPs, which ended in 2015, highlighted that further work is needed. We are now entering the second 6 year cycle which needs to ensure that the UK is on target to achieve compliance by the next deadline of 2021.

These plans target all pollution sources, but given the potential contribution from agriculture, farmers and land managers have a key role to play in achieving compliance. Metaldehyde is a challenging active ingredient due to its high solubility in water and easy movement from the pellet form through soils and into drains and watercourses. It is also difficult to remove from raw water using existing advanced end of pipe treatment, hence the need to prevent it entering water at all. To maintain the long term availability of metaldehyde, significant steps still need to be implemented to reduce the frequency and magnitude of detections, while at the same time maintaining the active as a cost effective means of controlling the UK's number one pest.

The grey field slug (*Deroceras reticulatum*) is the most common issue. It lays eggs in batches of 30 to 50, with 300 to 500 offspring each year depending on climatic conditions. Baseline populations tend to be set in April and May. Current conditions mean plenty of moisture is available, allowing quicker reproduction, but even in dry conditions slugs do not disappear; they simply move deeper in the soil profile until moisture levels on the surface increase. Inherent populations are endemic.



Where there is uncertainty or no history of slugs, an assessment should be conducted by using chicken layers mash covered up in various locations around the field on undisturbed soil. Slug pellets should not be used as bait. Treatment is justified where more than 4 slugs are found per trap in wheat, or 1 slug per trap in oilseed rape (4 in the previous crop).

Cultural controls

Cultural controls are the first measures to consider in slug management strategies. In recent seasons, slugs moving around crop canopies in summer have been relatively easy to see and this is an initial indicator of potential issues.

Removing cover for slugs is part of control measures. While removing straw does take away cover, the benefit of incorporating it has more value to long term soil structure and improvement than to slug management. Where straw is kept, a short chop and even spread is best to optimise incorporation.

Stubble management is a key cultural factor for slug control. Soil disturbance reduces slug numbers but consolidation is vital to restrict slug activity. Clearly cultivation decisions are heavily driven by any specific grass weed issue and your soil management strategy. Oilseed rape volunteers are best left on the surface where moisture is available so maximum germination occurs. Burying them in dry conditions can encourage dormancy.

Once a good flush of volunteers emerges, whether oilseed rape or cereals, they should be burned off alongside grass weeds with glyphosate to remove the food source.

Precision techniques can also be fundamental in supporting slug control strategies. The mapping of field soil types and variability coupled with historical knowledge will give a clear indication of problem areas. Cultivations and consolidation can be targeted in those areas and variable seed rates can be employed to increase potential establishment success too.

Early grain hollowing is a threat once drilling has taken place, but Redigo Deter seed treatment can be used to mitigate this. In conjunction with good consolidation post drilling, it will minimise slug movement and maximise emergence and establishment.

Chemical options

Having assessed these cultural options, chemical control measures should be considered. The options are metaldehyde and ferric phosphate. Methiocarb (Draza Forte, Decoy Wettex) is not available to purchase but any on farm stock can be used until 18th September 2015.

The next step is to understand if fields are in water catchments used to supply drinking water and in particular the 110 already

identified as at risk as a result of metaldehyde. Consulting the Environment Agency's What's in Your Back Yard tool (www.WIYBY.co.uk) is a useful first step; a postcode search will help identify if you are farming or advising on land that could impact on a drink water abstraction point, so called Drinking Water Protected Areas (DrWPAs).

Fields may also be in a pilot test catchment, whereby high risk fields, in terms of the potential risk posed to surface water, have been identified and a no metaldehyde approach is being evaluated. Cultural control methods are essential in these areas as ferric phosphate is the only active ingredient available. The catchments involved are Mimms Hall Brook in Hertfordshire, Avon and Leam, Warwickshire and Pincey Brook in the Cherwell. Pittsford in Northants is also part of the project but metaldehyde substitution is being piloted across the entire catchment for this season.

Some water companies are also running schemes to support growers to change product use away from metaldehyde. The support covers the cost of one application of ferric phosphate and taking part in the scheme. Check with your agronomist and local catchment officer or water company for any schemes in place.

Pellet quality is part of stewardship. Better quality pellets are generally made with durum wheat and are wet process. These last longer to maximise control. Ideally, pellets should provide three weeks protection, which can't be achieved with dry process products without multiple applications. Lower inclusion rates (1.5% and 3%) provide more flexibility in the autumn and will allow more applications while still complying with the 210 g a.s./ha limit. Baiting points are also important; slugs are indiscriminate feeders and if they find an oilseed rape plant before they find a pellet, that's what they will eat.

Product	A.S.	Type	kg/ha	pellets/m ²	A.S./ha metaldehyde
Derrex (15351) 20 kg	3% ferric phosphate	Durum wheat, dry process	5.0	38	-
			7.0	53	-
Sluxx (14462) 20 kg	3% ferric phosphate	Durum wheat, wet process	5.0	47	-
			7.0	66	-
Prowler (16087) 15 kg	3% metaldehyde	Durum wheat, wet process	5.3	40	160 g
			7.0	53	210 g
Trounce (14222) 20 kg	1.5% metaldehyde	Wheat, hybrid process	5.0	40	75 g
			7.0	56	105 g
Appeal (12022) 20 kg	1.5% metaldehyde	Durum wheat, wet process	4.0	80	60 g
			7.0	140	105 g

The metaldehyde stewardship guidelines still apply for this season:

- Statutory maximum 700g/ha per calendar year
- Maximum 210g/ha between 1st August and 31st December
- No pellets within 6m of a watercourse
- Do not apply if heavy rain is forecast
- If drains are flowing do not apply metaldehyde pellets
- Use minimum active per ha to avoid drainage and run off losses.

Spread width is also impacted by pellet size and integrity. Good quality pellets will reduce the risk of pellet breakup when making contact with the spread plate, but the reality is that no pellet will spread effectively to 24m on a single spinning disc slug pellet applicator. If using a 24m machine, it is advisable to calibrate to

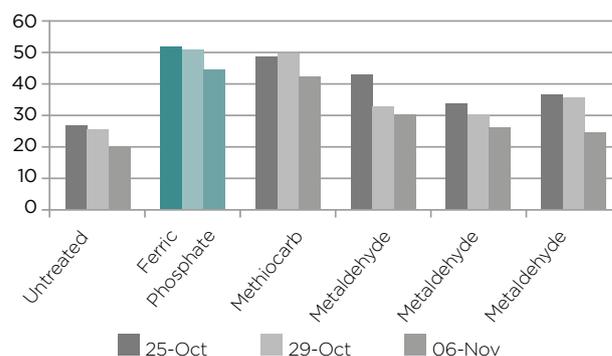
deliver half the target rate (kg/ha) and work on 12m tramlines, which achieves more uniform ground cover. Wind can severely alter the whole spread pattern, so 12m is recommended.

Strategies of use will be critical for maximum efficacy and stewardship. If conditions are dry but treatment is still warranted, using a dry process pellet, for example ferric phosphate (Derrex), will give satisfactory control. In oilseed rape, pre emergence is the ideal timing to protect emerging seedlings. Using ferric phosphate also means that metaldehyde use can be targeted when the risk of field losses to adjacent surface water is lower. Later in the season or when field conditions are wet, higher quality ferric phosphate pellets (Sluxx) should be applied (see table).

The critical element of slug control with pellets is to break the significant population cycle that has been apparent in some areas in recent years. This needs good baiting points and hence a higher dose of Sluxx would be the favoured approach. Frontier trials have shown that under high pressure, ferric phosphate has been as effective as any other option.

Pellet comparison trial: 2012

Plants emerged 12, 16 and 24 days after first application



By taking a more holistic approach to slug control strategies which incorporate cultural measures as well as chemical, the likelihood of achieving good efficacy and management of water pollution is higher. Product strategy consideration in high risk catchments should prioritise ferric phosphate pellets to increase the chance of metaldehyde remaining in our slug control armoury.

Useful websites
www.voluntaryinitiative.org.uk
www.getpelletwise.co.uk
www.wiyby.co.uk

“Cultural controls are the first measures to consider in slug management strategies if we are to retain the long term availability of metaldehyde.”



Stuart Hill
 Technical and development manager

Early strategies for pest and weed management in oilseed rape

Oilseed rape accounts for over half a million hectares of English farmland and to ensure this area produces a successful crop, taking action to minimise damage from flea beetle, grass weeds and broad leaved weeds is vital. Crop production specialist Paul Cartwright advises how growers can help crops to achieve their full potential.

Cabbage stem flea beetle is a widespread pest in oilseed rape in the UK, with parts of the East and South East of England hit hard in autumn 2014. In large numbers, flea beetles feeding on emerging crops will typically cause stunting and reduce plant vigour.

The main defence against flea beetle attack is rapid crop emergence, which requires attention to detail during establishment to minimise potential stress factors that could slow early growth. Significant pressure at, or shortly after drilling can mean crops fail to emerge as adult flea beetles feed on shoots before they reach the soil surface.

Focus on the soil environment is important in reducing this; moisture loss needs to be minimised and good seed to soil contact should be achieved with adequate consolidation after drilling. Slow germination and growth caused by drilling into dry soils will leave crops exposed at their most vulnerable growth stages, so sowing at a consistent depth, preferably into friable soil with some moisture, is key for a successful oilseed rape crop.

Removing any limiting factors, such as nutrient or trace element deficiencies, is vital. Placement fertiliser at drilling, nutrient seed dressings and foliar feeds all play a part, improving plant health, stress tolerance and the crop's ability to grow away from any pest damage it may sustain.



Phosphate deficiency in OSR trials



OSR variety trial plots with seed treatment and nutrients applied before drilling (left) and without (right)

It is difficult to predict exactly where hotspots might occur this autumn. Without widespread availability of insecticide seed treatments to assist during the establishment phase, growers in all areas must be vigilant, monitoring young plants for signs of damage, typically as 'shot-holing' appearing on cotyledons and emerging new leaves.

In areas with access to seed treated with Cruiser OSR or Modesto which were recently granted emergency authorisation for limited use in 2015, growers must still be on their guard and prepared to spray crops if necessary.

Where newly emerged oilseed rape exhibits signs of flea beetle feeding damage, insecticide sprays may be justified if thresholds are reached. With knock-down resistance (KDR) present in flea beetle populations, full control may not be possible but populations can be managed. Applications of one of the more active pyrethroids, such as lambda-cyhalothrin (e.g. Karis 10 CS) or zetacypermethrin (e.g. Fury 10 EW), should give better control of flea beetle than cypermethrin. Other insect pests such as turnip sawfly larvae and rape winter stem weevil will also be controlled if present when crops are sprayed.

Treatment of adult flea beetles should begin if 25% of the leaf area has been eaten at emerged cotyledons to 2 leaf stage, or if 50% of the leaf area has been eaten at the 3-4 leaf stage of the crop. At any stage, treatment may be justified if leaf damage is being sustained quicker than the crop is growing to compensate.

With such heavy reliance on one group of chemistry and with KDR confirmed in UK populations, growers should avoid the temptation to routinely apply insecticides. To prevent resistance from spreading, it is important to spray only when absolutely necessary and to use full recommended rates. If control is poor, repeat applications of pyrethroid products are unlikely to improve the situation and should be avoided.



Establishing a vigorous, healthy crop to mitigate the effects of flea beetle attack will also benefit weed control programmes in oilseed rape. Alleviating any compaction will allow unrestricted tap root growth, keeping water and nutrients in ready supply to help produce a competitive canopy that closes over quickly, shading germinating weeds.

There may be temptation to wait until the crop is fully emerged before applying residual herbicides, especially if there are concerns about possible crop failures due to insect pests. If applications are delayed too long and are applied post-emergence of the weeds, efficacy and overall control may be compromised, depending on the species present.

A good quality seedbed is essential to maximise the performance of soil-acting herbicides, which are targeted at the soil surface and work mainly in the upper few centimetres. Consolidate to retain moisture, leaving firm and level seedbeds in the best possible condition for residual herbicides to work effectively. The herbicides should ideally be applied within 48 hours of drilling. Left with a puffy or cloddy seedbed or with inadequate soil coverage over the seed, growers must delay applications until the early post-emergence timing to avoid the risk of herbicides checking crop growth, leaving them more prone to slugs and flea beetles.



OSR drilled same time, same trial field after spring crops (left) & after winter barley & compacted soil (right)

Product choice will be dependent on target weed species and likely based around metazachlor, which is a key active ingredient for both grass and broad leaved weeds. Contact graminicides and late season residuals based on propyzamide will be required in many situations, but will not provide satisfactory control without a solid foundation. Aim to apply a total of 750g/ha metazachlor and start the programme before grass weeds emerge, whether targeting black-grass, ryegrass or brome species.

Invariably, mixed broad leaved weed populations will require herbicides combining additional active ingredients to widen their spectrum. Co-formulations with quinmerac, such as Legion, will add valuable early poppy and cleaver control to the wide range controlled by metazachlor, such as mayweed, groundsel and annual meadow grass.

Uptake of these herbicides is primarily through root systems developing near the soil surface. As weeds become established and root systems develop deeper into the soil, they will often not pick up sufficient chemical to deliver a lethal dose and activity will be reduced.

Adding clomazone (e.g. Cirrus CS, pre-emergence only) to programmes using metazachlor and quinmerac will further improve activity on key broad leaved weeds such as cleavers, chickweed, shepherd's purse and some brassica weeds such as hedge mustard. Growers must familiarise themselves with the stewardship requirements relating to application conditions and spray quality before using any product containing clomazone.

In situations where cranesbill species are likely to require control, dimethenamid-P will feature, for example Elk. If used in single or split dose programmes starting at the pre-emergence timing, Elk will also provide useful activity on fumitory. Ensure second applications of split dose Elk programmes are made soon after the crop is through the ground, even if weed control from the pre-emergence spray looks good, as activity drops off very quickly below 2.0 l/ha total dose.

With most regions benefitting from mid August rainfall, conditions for establishing oilseed rape in the main drilling window look good. With soil moisture present, residual herbicides should perform well with timely applications made to weeds of the correct size. If conditions turn dry for later drilled crops, dimethenamid-P will be slightly more active than metazachlor on a similar range of weeds.

“Conditions in the main drilling window look good, but minimising risk from pests and weeds is essential to establishing a vigorous, healthy crop.”

Paul Cartwright
Crop Production Specialist





Legislation and the future availability of plant protection products

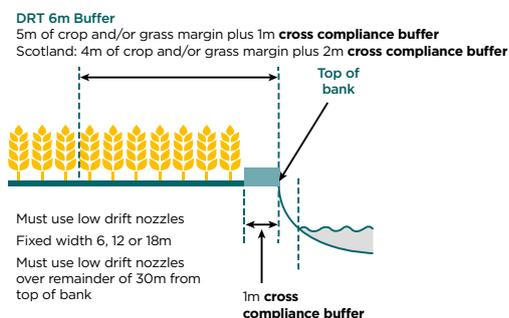
As agricultural legislation steadily increases, Frontier's technical manager Reuben Morris looks at some of the most topical legislative changes and how they are affecting our farmland.

Buffer zones

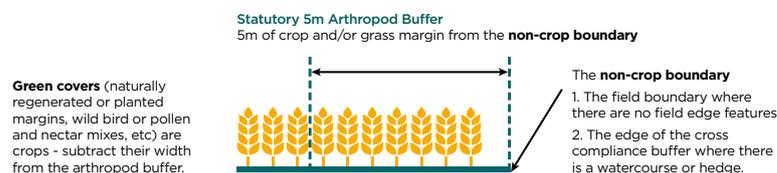
Buffer zones were introduced to protect farmland wildlife and water from plant protection products. Though implementing such changes can be a challenge, it is only due to this work of legislators that the affected products can remain in use in the UK.

Aquatic buffers apply around watercourses, but arthropod buffer zones apply to the whole field margin. They have caused some confusion due to uncertain label wording; if unsure of product use regulations, expert guidance should be sought. Arthropod buffers play a vital role and are here to stay, so we need to understand them and integrate them into our farm practices.

Example Drift Reduction Technology 6m aquatic no-spray buffer:



Example statutory 5m arthropod no-spray buffer:



Frontier has already worked hard with Muddy Boots to improve the information on arthropod and aquatic buffers on CropWalker recommendation sheets. We will continue to help where possible to make complying with legislation easier for growers.

Comparative assessment

Under the new plant protection products legislation, comparative assessment is required for relevant product registrations after 1st August this year, but EU legislators backed away from a full strength version. Products submitted for registration that contain an active substance on the list of Candidates for Substitution will be subject to comparative assessment for each individual use on their label. If no commercially acceptable alternative product is available, or if resistance management will be impacted by loss of the product, the use is retained. In practice this will result in many product uses being retained and so comparative assessment will have a much more limited impact on plant protection product availability than initially feared.

Endocrine disruptors

New legislation around endocrine disruptors is expected in 2017. Legislators' current focus is on the definition that will be used to determine the actives that are finally categorised as endocrine disruptors. 700 substances have already been screened against 4 definition possibilities. Once the list of endocrine disruptors is finalised, the loss of a number of products is expected, including some major triazole fungicides. Rates of linuron and glufosinate-ammonium have already been restricted due to endocrine disruptor classification. This legislation will extend to a range of chemicals wider than just plant protection products.

Frontier is already considering potential product losses in our strategies for the future. As details are confirmed, we will be able to determine how these limitations can be worked around so that growers can continue to produce healthy and profitable crops.

“Implementing changes can be a challenge but it is only due to the work of legislators that we can continue to use these products.”

Reuben Morris
Technical Manager

