


Arable Crop Report

March 2019

28th March 2019

Overview

Winter 2018/19, as a rule, provided good conditions for crop growth. Mild temperatures and below average rainfall allowed crops to establish well, with good over winter survival.

Soil conditions have been such that winter pesticide and early spring fertiliser applications were made with few delays. Cultivations and drilling of spring crops are progressing well.

Cereal crops in particular are in good condition, with low levels of weeds, pests or disease present at the end of March. Oilseed rape crops are more variable with some very good crops, with good plant numbers, and others that have been severely affected by Cabbage Stem Flea Beetle (CSFB). About 5-8% of the drilled area of winter oilseed rape has been lost already, and there remains a small area that is of questionable viability. Disease and weed pressure in winter oilseed rape remains low.

Regional crop condition scores and growth stage data are available on the AHDB Crop Development report dashboard.

This crop development report has been prepared by ADAS using data provided by regional reporters from ADAS, NIAB TAG, SRUC and some independent agronomists.

Weather

The majority of GB received below average rainfall throughout the winter, with parts of the North East and Scotland receiving less than 30% of average rainfall in January. Regions in the East recorded as little as 0-25mm per month in January and February. Rainfall increased slightly in March, with a windy and often wet start to the month (wetter in the West). Despite a few cold spells and sharp frosts at the end of January, temperatures on average have remained above normal for most of the winter and into the spring. In contrast, high rainfall in the West has resulted in water logging and standing water in fields.

Crop condition

Crop condition has been assessed using the USDA approach. This classifies crops into one of five categories, from very poor through to excellent (see details below). The values are given as the percentage of the GB crop area for that crop, that fall in each of the categories – regional condition scores are available on the AHDB dashboard that accompanies this report.

Overall, the majority of cereal crops are in good or excellent condition, with a small proportion deemed to be in fair condition (Table 1). However, winter oilseed rape has faced more challenges this season, with 25% of crops in a fair condition and 17% of crops in poor or very poor condition, leading to the risk of crop losses.

A number of oilseed rape crops have already been lost and re-drilled with other crops (this data is not captured within the condition scores)

Table 1. Condition score of GB winter crops (at end of March)

	Crops not yet planted or emerged	Very Poor	Poor	Fair	Good	Excellent	Total
Winter Wheat	0%	0%	1%	7%	56%	36%	100%
Winter Barley	0%	0%	0%	5%	73%	22%	100%
Oats	16%	0%	0%	5%	74%	5%	100%
Winter OSR	0%	5%	12%	25%	45%	12%	100%

For regional level condition score information see AHDB Crop Development Report dashboard

Crop Condition definitions:

Very Poor	Extreme degree of loss to yield potential, complete or near crop failure.
Poor	Heavy degree of loss to yield potential which can be caused by excess soil moisture, drought, disease, etc.
Fair	Less than normal crop condition. Yield loss is a possibility but the extent is unknown.
Good	Yield prospects are normal. Moisture levels are adequate and disease, insect damage, and weed pressures are minor.
Excellent	Yield prospects are above normal. Crops are experiencing little or no stress. Disease, insect damage, and weed pressures are insignificant.

SPRING CROPPING

Spring Wheat

Drilling progress and crop development

Drilling progress - 13% of the planned spring wheat area was drilled by the end of March

The majority of activity took place on light land in the East Midlands and Eastern region. The earliest sown crops have one to two true leaves (GS 11-12), while the majority of those crops sown to date are just starting to emerge. Pre-emergence herbicides have been used to control black-grass.

Spring Barley

Drilling progress and crop development

Drilling progress - 46% of the planned spring barley area was drilled by the end of March

Spring barley drilling began in the last week of February, with an estimated 46% of the GB spring barley area drilled by the end of March. Most of the progress has been made in the South East, Eastern and East Midlands regions, with drilling yet to start in northern England and Scotland.

In the West where rainfall has been higher, heavier soils remained too wet to access. As a result progress has not been as great in these regions as in the East, where even the heavier soils were sufficiently dry to work by the end of March.

Progress is slightly ahead of recent years, where 30-40% of the spring barley area had been drilled by the end of March. Growth stages are dependent on drilling time, with the majority of crops either just drilled and germinating or just starting to emerge. There were a small number of crops drilled in February that have two true leaves (GS 12).

Spring Oilseed Rape

Drilling progress

The first crops were drilled in the last week in March.

WINTER CROPPING

Winter Wheat

Crop development

The dry conditions during the autumn meant the drilling window remained open into November in many areas. An estimated 35% of the wheat area was drilled in September, with crops often sown soon after a shower before the soil dried out again. For many, drilling windows with sufficient moisture in September were limited and they opted to delay drilling. The majority of crops (55%) were drilled in October, when there was a little more moisture available for crop establishment. The remaining area was drilled by the end of November, with only small areas drilled in December. Even late drilled crops following sugar beet or maize established well in the mild conditions.

A generally mild and dry winter has resulted in the majority of winter wheat crops coming through with few plant losses. Despite the windy and wet weather in March, most crops (92%) are going into April in good or excellent condition and crop yield potential looks positive.

At the end of March, the majority of crops (60%) were in the later stages of tillering (GS 26-29), with 40% of crops at leaf sheath erect (GS 30) and just under 10% of crops having the first node detectable (GS 31).

Weeds

Autumn herbicide treatments proved effective in controlling grass and broad-leaved weeds, with weed pressure low at the end of March in the majority of crops.

Black-grass – Generally low levels of black-grass have been reported. Where resistance is not an issue any black-grass present was well controlled, with follow up applications of Atlantis. However, where resistance is a problem (particularly in the East) and planned autumn herbicide programmes were not applied, there are problem areas of black-grass with poor levels of control.

Brome – Control of brome has generally been good where contact acting herbicides were applied in the autumn.

Wild oats – Rapid growth of wild oats in some crops have required an early spring herbicide application to reduce competitiveness with crops,

Pests

The dry autumn conditions meant that there was little or no slug activity, even where oilseed rape was the preceding crop. However, aphid numbers were high this autumn, in part due relatively mild conditions leading to a late finish to aphid migration. As such, growers in several regions applied foliar insecticides to their earlier drilled crops, even in cases where a seed treatment was used. Periods of sharp frost in November and again in January have helped to keep aphid numbers in control.

Slugs – Pressure from slugs has remained very low. Where slugs have been reported, the damage is limited due to the forward establishment of the crop.

Aphids – Effective control of aphids following autumn insecticide applications.

Wheat bulb fly – Low levels of wheat bulb fly reported.

Disease

Overall disease levels were low at the end of March. Mild conditions encouraged the development of mildew, particularly on early (September) sown crops. January frosts controlled most outbreaks, and few crops have required treatment to date. Septoria levels are starting to increase and spring fungicide regimes will focus on preventing spread of infection further up the plant.

Septoria tritici – Prevalent on the lower leaves, predominately in the early drilled (September/early October) more susceptible varieties.

Yellow Rust – Levels of yellow rust have been low, with only very few crops requiring pre-T0 fungicide applications.

Mildew – The relatively mild weather led to the presence of mildew over autumn and winter in many crops. Where there were frosts at the end of January, the mildew has been effectively controlled and is now much less of an issue. Mildew is now limited to the lower leaves in many cases.

Crop nutrition

The first spring nitrogen applications were applied in mid-February and will continue into early April. Crops tend to be a good colour, with little evidence of deficiencies. This has been aided by increased nitrogen mineralisation over winter, increasing the availability of nitrogen for crop uptake over winter.

As a result of the warmer temperatures and increased nitrogen uptake, there are some thick crops that will require a robust PGR programme to reduce lodging risk. Some crops on organic soils showed signs of manganese deficiency, which have been treated as needed.

Winter Barley

Crop development

As with winter wheat, there were few obstacles to drilling once harvest was complete. 60% of the GB crop area was drilled by the end of September, with the remaining 40% sown during October. Winter barley has a narrower natural drilling window than wheat, with yield penalties increasing rapidly once drilling is delayed beyond the end of October.

Good conditions in autumn and over winter led to good establishment of the crop. Crops overwintered well, largely due to a relatively dry, mild winter. Crops look lush and green

following applications of spring nitrogen. At the end of March, 73% of the crop was rated as being in a good condition, with a further 22% in excellent condition.

An estimated 40% of crops remained at tillering (GS 26-29) in late March, although 35% had the leaf sheath erect (GS 30). Around 25% of crops had the first node detectable (GS 31).

Weeds

Autumn herbicide treatments proved effective in controlling grass and broad-leaved weeds in the majority of crops, with weed pressure low at the end of March.

Black-grass and **brome** are present in some crops, but generally at a low levels.

Wild oats – Rapid growth of wild oats in some crops will require a herbicide application to reduce competitiveness with crops.

Pests

No issues to date. **Slug** pressure noted as particularly lower than normal.

Disease

Net blotch and **Rhynchosporium** are present in crops at low levels. **Mildew**, was active through the autumn. Although where there were frosts at the end of January, the mildew has been effectively controlled and is now much less of an issue. Mildew is now limited to the lower leaves in many cases. Any remaining mildew will be treated at T1.

Crop nutrition

Crops are growing well with good plant and tiller numbers and have responded to early nitrogen applications. PGR + T1 fungicides will be applied in early April. Manganese deficiency has been an issue in some crops, with several sprays being applied.

Oats

Drilling progress and crop development

A good start was made to spring oat drilling by the end of March, mostly in Southern and Central England. To date, 84% of the total GB oat area has been drilled. Drilling of spring oats has not yet begun in the North of England or Wales, where they are waiting for the land to dry up after wet weather in early March.

Winter oat crops have come through the winter well with few plant losses. At the end of March typical crops were tillering, with crops in the South and East tending to be at the later stages of tillering (GS 29). Crops further north tended to be at early tillering (GS 23). More forward crops had reached stem elongation (GS 30), with more backward crops just starting to tiller (GS 22). An estimated 74% of the crop was scored as at a good condition at the end of March.

At the end of March, the most forward spring crops, those drilled in February, had the first true leaves (GS 11), while typical crops were just sown or emerging.

Weeds

Autumn residual herbicides worked well at controlling both grass and broad-leaved weeds and the overall weed burden in crops is low. Early spring flushes of **cleavers** and **mayweed** were starting to emerge in crops by the end of March.

Pests

No issues to date.

Disease

Mildew is present in many crops, with symptoms mainly confined to older leaves. Mildew is not at high enough levels to require immediate control. Crops will be treated at T1 unless mildew becomes very active.

Winter Oilseed Rape

Crop development

By the end of March the majority of crops (64%) were at the green bud stage (GS 3.3), with around 15% of crops at the yellow bud stage (GS 3.7). The occasional crop is just starting to flower. More backward crops had the flower buds enclosed (GS 3.1).

The condition of the crop varies greatly depending on the impact of Cabbage Stem Flea Beetle (CSFB) and pigeon damage. Where these pests were not present established crops, for the most part, were in good to excellent condition (57%) with good plant numbers. However where CSFB had been active, the condition of the crop was negatively affected. Some 17% of the crop area is rated as poor or very poor, 25% as fair and 45% of the crop was scored as good.

Over winter, in the region of 5-8% of crops were lost due to a combination of poor establishment, CSFB damage and pigeon grazing. These fields have either been re-drilled with oilseed rape or alternative winter crops.

Weeds

Autumn applications of propyzamide or carbetamide were applied in a timely manner with good conditions over winter conducive to travelling in most crops. The majority of these applications gave good levels of control of both grass and broad-leaved weeds. However, where CSFB reduced the crop density, **black-grass** and broadleaf weeds such as **mayweed** and **thistle** have become established. In these cases, follow up herbicides such as clopyralid or clopyralid+picloram were required to control weeds.

Pests

The predominant pest challenge this winter was CSFB, with a number of crops lost over winter as a result of adult feeding damage. The mild conditions over winter have also favoured larval survival and high levels of larvae are being detected in affected crops. Larvae cause damage to the stem base and can cause crops to lodge as a result of weakening the base of the plant with potential negative yield impacts.

Pigeons – A minority of crops have been affected by significant pigeon damage in the last month, particularly crops which have been badly affected by CSFB.

Pollen beetles – Increasing numbers of pollen beetle are being seen in the crop in the last week of March. As flowering is imminent, few crops are likely to be treated as the beetles are only damaging when they have to eat into buds to get at the pollen. Backward crops may be sprayed with Biscaya if numbers remain high.

Disease

Low levels of **light leaf spot** have been reported at the end of March. Fungicides are starting to be applied to control light leaf spot on more susceptible varieties, but overall disease incidence remains low.

Crop nutrition

Where CSFB have not greatly affected the crop, many crops are thick and PGRs or metconazole are being applied to reduce the risk of lodging.

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