VARIETY PERFORMANCE GUIDE

Elsoms
The Seed Specialists

Setting a new standard for spring oats.

A guide to growing the most productive oat in the UK.

CALEDON
Spring Oats

"Our trials show that Caledon has good milling potential."

Brin Hughes, Agronomy Manager, Richardson Milling UK Ltd

INTRODUCTION

For growers seeking maximum productivity, Caledon stands out as the most productive oat in the UK — delivering high yield results consistently. The highest-yielding variety on the AHDB Recommended List, Caledon outperforms the competition by a clear margin: 4% more yield than Merlin, and 5% more than WPB Isabel.

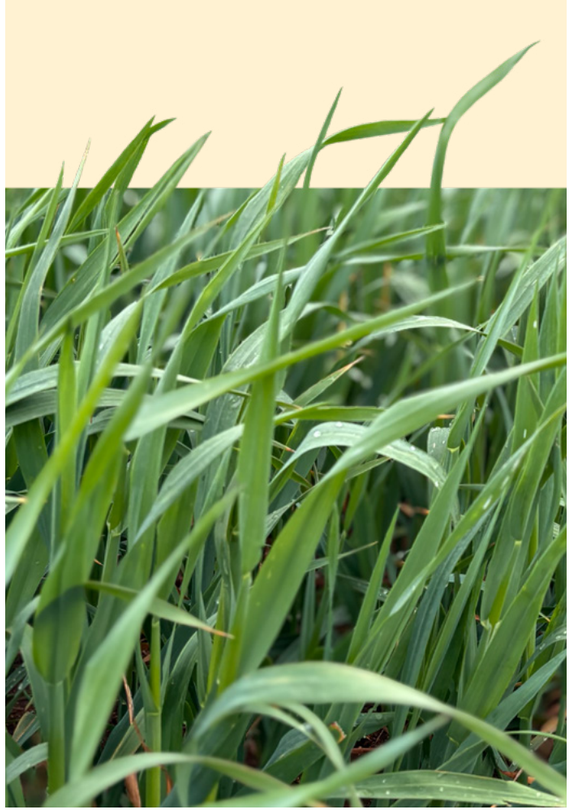
Spring oats are a fantastic crop to grow in the UK. From their ability to scavenge nutrients and compete against grass weeds, to their value as a potential disease break, oats offer benefits wherever they appear in the rotation. As with anything of value, it's the care and attention given that often yields the best results, and oats are no exception to this rule. Understanding their growth pattern and nutrient requirements can be the difference between an average crop and a great one. So, when a variety hits the Recommended List with a dominating yield over the next best, getting it right becomes even more rewarding. This guide sets out to highlight considerations when growing oats and aims to answer all your key questions about Caledon.

AHDB
RECOMMENDED

CALEDON
Spring Oats

TOP FEATURES

- **Caledon is the oat to beat**. Yield, reliability, and strong milling appeal - Caledon ticks every box.
- For growers seeking maximum productivity, **Caledon stands out as the most productive oat in the UK** - delivering high-yield results consistently.
- **The highest-yielding oat**; Caledon outperforms other varieties: 4% more yield than Merlin, 5% more than WPB Isabel and Canyon.



STARTING OFF RIGHT

SELECTING THE RIGHT FIELD

Spring oats will grow on both light and heavy soils but often do better on slightly heavier soils in comparison to spring barley that is better adapted to light land. They favour slightly acidic soils and pH testing is always advised to ensure the crop is receiving its optimal nutrient requirement. It is also important to look at field history and previous agronomy as oats are more sensitive to pesticides than other cereals.

SEED TREATMENTS

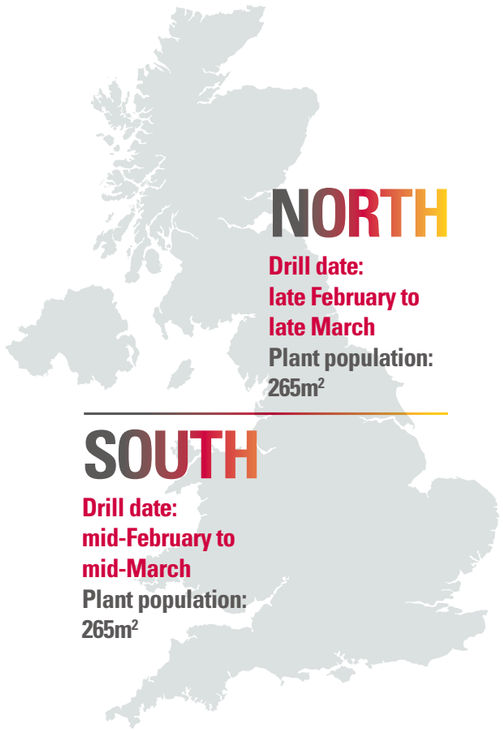
There are a lot of seed treatment options available to spring oats. **We recommend choosing an added-value treatment such as Vibrance Duo (sedaxane + fludioxonil)**, which provides effective control of loose smut and is also associated with improved root health and crop establishment compared to a standard single-purpose treatment.

As oats can be more susceptible to manganese deficiency than other cereals, **pairing your fungicide treatment with a manganese or combination seed treatment will help give your seed the best start.**

> "Untreated yield is one of the truest tests of a variety's genetic potential — and that's where Caledon really sets itself apart. It's not just about how a crop performs with the full support of inputs, but how it stands up on its own. Caledon consistently delivers exceptional untreated yields, giving growers a strong foundation to build on and real confidence in the variety's natural resilience and productivity. This also indicates better potential performance under organic or low-input conditions, where natural vigour and disease resistance are essential."
>
> **Dr. Steffen Beuch, Nordsaat oat breeder**

WHEN TO DRILL

Trials have shown that sowing oats from late February to mid-March in the South, and up to late March or April in the North, provides the best results in terms of both yield and quality.



NORTH

Drill date: late February to late March
Plant population: 265m²

SOUTH

Drill date: mid-February to mid-March
Plant population: 265m²

SEED BED PREPARATION

Oats are known for having a strong root system and put more energy into rooting than shooting at establishment. Matching nutrient requirement and planting into a soil that has good structure and is well drained is key.

If possible, creating a stale seedbed in advance of drilling can be advantageous as there are no pre-emergence herbicide options for spring oats in the UK.

VARIETY OVERVIEW

DRILLING RATES

Caledon's tillering capacity is medium and, although its growth habit to panicle emergence is quick, it is shown to be sown like most oats looking to achieve 250-275 plants/m2. Achieving a population over this has rarely shown a dramatic yield increase. However, establishing too thin a canopy could lead to slower ripening from a stay green effect of the leaves and stems. Homogeneity of the crop supports the harvest and makes your threshing much easier.

It's important to remember that earlier sowing can increase the risk of field losses, while later sowing may reduce tiller numbers. Both factors will influence the optimal sowing rate for Caledon.

PGRs

Making the most out of your crop often means maximising on both yield and quality. Brackled or lodged oat crops are not only difficult to harvest but can also reduce grain quality and, in case of lodging, yield. Keeping oats standing isn't difficult, but it does require attention to detail. Caledon is naturally a very stiff strawed variety and its growth habit will comfortably allow for it to be drilled early.

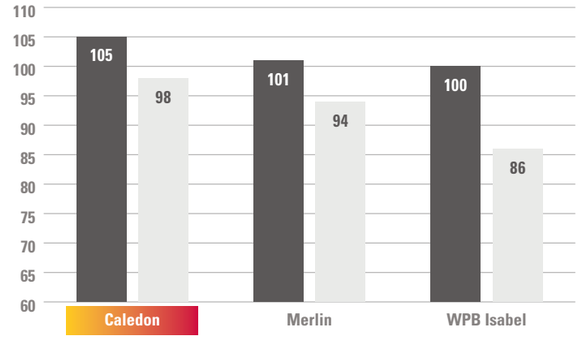
Oats have a softer leaf compared to other cereals which makes them sensitive to PGRs, especially in drier conditions. **In most cases, splitting your PGR application offers the greatest flexibility, allowing you to account for factors such as weather, drilling date, and growth habit. Early applications can help even out tillering and shorten lower internodes, while later applications tend to reduce upper internode length and lower the risk of brackling**.

Caledon's panicle development is very early so it's important to get your timing correct. The optimum timing for Caledon is around the same time as your T1 fungicide application, where the use of a PGR will have the greatest effect on shortening and strengthening internodes, and thickening the stem wall. If splitting your application, consider doing this either side of your T1 spray to gain a balance between evening tillers (as Caledon has a medium tillering ability) and a reduction in brackling.

MAXIMISING YIELD

Caledon is the highest yielding spring oat, and its growth needs to be supported to maximise your return. Nitrogen will affect the number of grains set which has a greater influence on yield over grain size. Spring oats are traditionally viewed as a low-input crop and have often been managed accordingly. However, Caledon responds well to greater investment, rewarding growers who give it the attention it deserves.

Treated yield %



Treated Untreated Source: AHDB Recommended Lists Spring Oats 2025

FERTILISER

Getting fertiliser timing right is essential in all cereal crops to ensure nutrients are available when the crop needs them most. **Oats should have their fertiliser prioritised early in their growth to minimise green stems at harvest. Our recommendation is to avoid applying Nitrogen after GS31 in all circumstances.**

We know to get the best yield from Caledon it benefits from being sown early, however you must watch your fertiliser applications when doing so. Sowing before March, or on a light sand soil, you must consider the risk of leaching and take appropriate action to reduce this risk. Although RB209 advises rates no higher than 40kg/ha before mid March or on light soils, we are aware that many spring oat growers prefer to apply all their Nitrogen in a single application at drilling or just after. Recent trials evidence for early sown crops (before early March) has shown that a 70:30 split (70% at drilling – 30% at GS30/31) has given improved yields over a single application. When trialed this has shown the best yield benefit for Caledon.

Fertiliser recommendations should always be made by a FACTS qualified advisor, be centred around RB209 values, and not exceed the maximum Nitrogen application amount for a specified area e.g nitrate vulnerable zones. All agronomy advice should be tailored to your situation and should come from a qualified BASIS agronomist.

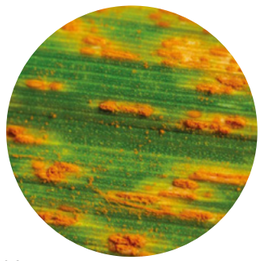
PROTECT THE CROP

The two biggest diseases that pose a risk to oats are powdery mildew *(Blumeria. Graminis f.sp avenae)* and crown rust (*P.uccinia coronata*).

POWDERY MILDEW

Powdery mildew appears as white fluffy pustules turning to an off white /beige colour as it ages. A well known disease to oat growers and increasingly more complicated to control as it can survive on crop debris and green bridges. Although it requires high humidity (>80%), the conidia spores will germinate between 5-30°C meaning the threat is present through the season. There are several options available in the control of mildew but none as effective as varietal resistance. **Caledon has the highest resistance to powdery mildew on the recommended list (scoring 8)** offering growers security, the likes of which we've only seen previously in varieties such as Canyon, Delfin and Yukon.

CROWN RUST



Crown rust appears as orange/ brown pustules scattered over the leaf surface initially, similar to brown and yellow rust. Crown rust prefers warm humid weather with optimum conditions at temperatures 20–25°C. Crown rust is a yield robbing disease that can be difficult to control. The spread is mainly airborne, however various spores can lay dormant or survive on other host species infecting the crop in the spring. Varietal resistance is again very important alongside a use of cultural controls. **Caledon has very good tolerance to crown rust, second only on the list to Asterion (scoring 5).**

CONTROL STRATEGY

The severity of powdery mildew reduces in thinner, less luscious crops and in some cases it is advised to reduce sowing rates and /or fertiliser rates. Caledon exhibits the highest potential for yield on the recommended list and fertiliser is key to achieving that potential. **Reducing rates would not be advised**. In addition to its very high genetic resistance to mildew, Caledon is quite a petit framed variety and doesn't create a thick dense canopy like some other varieties. **This makes lower seed rates less of a necessity**.

Control of both diseases should be manageable with a two-spray programme.

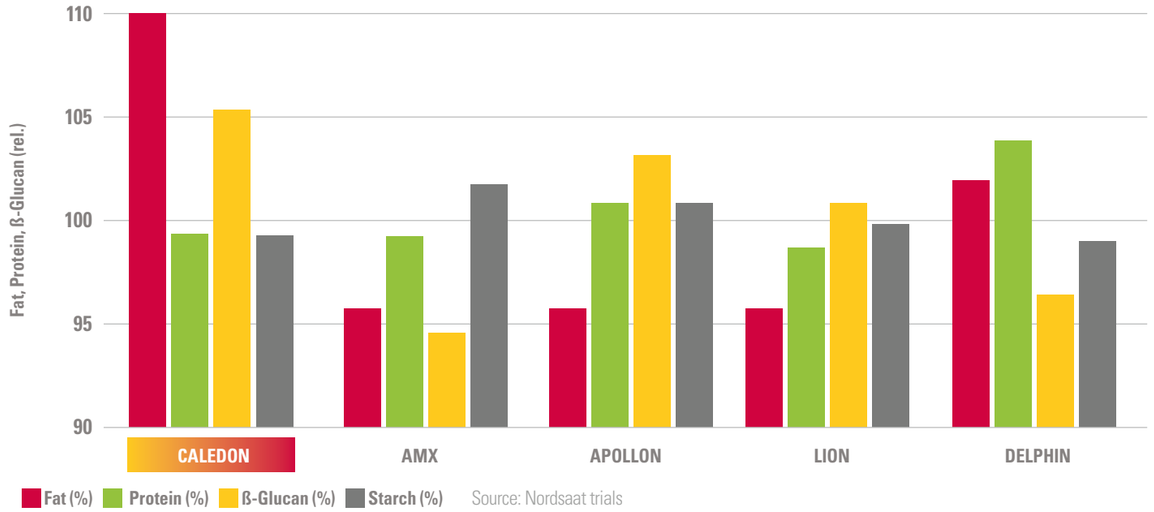
The T1 timing at stem extension GS30-31 followed should target protecting the plant from early crown rust infection. Although mildew control isn't necessary so far as the genetic resistance is strong enough that any infection may be below any economic threshold however, if you chose to treat, consider pairing with a protectant/eradicant mildewcide such as Cyflamid (cyflufenamid).

At T2 you're targeting GS39 until GS55. Timing here is very important in both the protection against crown rust and the use of an SDHI.

Oats ripen from the top down, and while maximising yield through the stay-green effect of an SDHI is important, careful timing is essential to avoid delaying senescence.

QUALITY

Nordsaat trial data below shows the exceptional quality of Caledon, ticking all the boxes for millers.



Caledon easily achieves grain quality contract measures for milling.

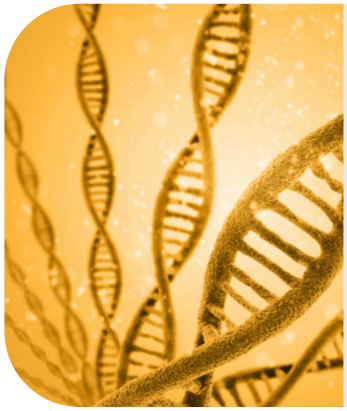
General grain quality contract measurements	Spring
Minimum specific weight (kg/hl)	50-51
Maximum moisture content (%)	15
Maximum admix (%)	2
Discoloured groats per 100g	30
Hulling losses (max %)	25-30
Screenings <2mm (max%)	6-7

HARVEST AND STORAGE

Harvest always feels a long way off during the growing season but when it arrives it rewards those who planned. Setting up the combine correctly will help reduce losses and potentially the number of volunteers in the next crop. Aim for below 15% moisture content to minimise storage risks. Most spring oats will be moved from October onwards, so ensuring that the seed is at an adequate moisture level and temperature will allow it to be stored successfully and mitigate the risks associated with damp grain.

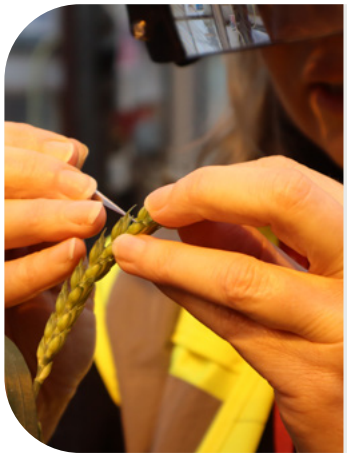
VARIETIES THAT EXCEED EXPECTATIONS

We're committed to continued investment in cutting-edge research and development to bring you top-tier varieties, like Caledon.



Advanced genomics platform.

Our state-of-the-art genomics platform enables us to accelerate the breeding process, allowing for precise selection of desirable traits. This technology empowers us to develop varieties that deliver superior performance.



Expert staff and technology.

Our dedicated team of breeders, scientists, and agronomists work tirelessly to develop and refine our varieties. We harness the power of artificial intelligence (AI) and drone technology to enhance our breeding programs and ensure the highest quality standards.

SAATEN UNION

Strength in partnership.

Elsoms' long-term partnerships ensure we rigorously evaluate and validate our various crops' performance through extensive testing in various scenarios and conditions. Elsoms has access to a huge resource of data and knowledge. Our partnerships also give us access to a wide variety of breeding material from across the world allowing us to keep developing new varieties year on year, bringing beneficial new traits to market.

Speak to the specialists

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