



Forensic

Spring Malting Barley

Parentage: (Troon x Vitesse) x Oxbridge

Status: HGCA Recommended List 2010

SAC Recommended List 2010

Distilling variety offering exceptional end market flexibility

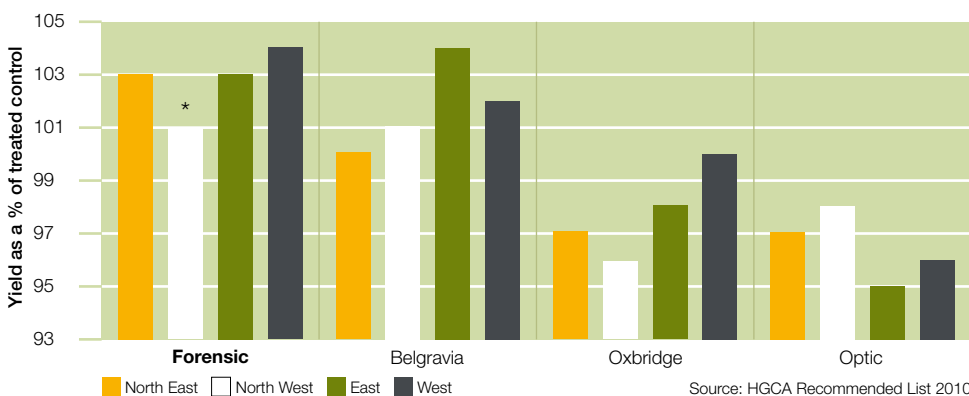
Yield potential

Forensic is a high yielding spring malting barley with provisional IBD approval for both malt and grain distilling.

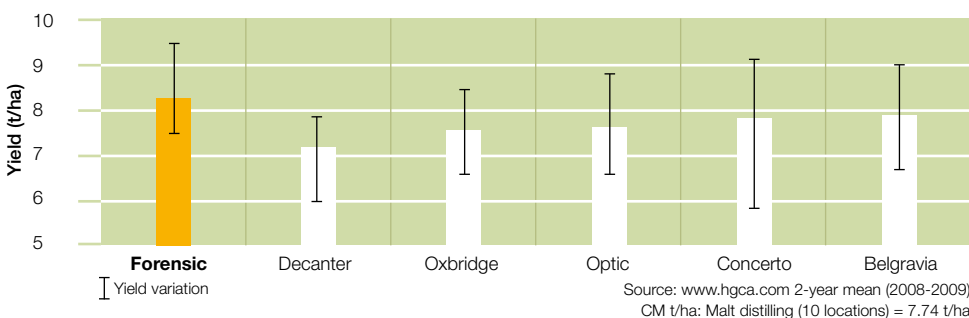
Variety	UK Treated Yield % (7.2 t/ha)	UK Untreated Yield %
Forensic	103	85
Belgravia	102	94
Oxbridge	98	88
Optic	97	80

Source: HGCA Recommended List 2010

Forensic has high yield potential, especially in northern regions of the UK where it is ideally suited to the distilling market.



Forensic is consistently higher yielding than Concerto, Belgravia, Optic and Decanter at malt distilling sites (0.43 t/ha above Concerto).



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Disease resistance

Forensic has average foliar disease resistance and will show a yield response from a fungicide input programme.

Variety	Mildew	Brown Rust	Rhynchosporium	BYDV
Forensic	4	6	5	7

Source: HGCA Recommended List 2010

Fungicide use

Always consult your agronomist and adapt programmes to local conditions.

Getting early to mid-season agronomy right is crucial to establishing a healthy crop.

Inputs should be tailored to control mildew and protect against Rhynchosporium at T1. T2 timing should be aimed at retaining green leaf area.

T0 – In high disease pressure situations, the application of a suitable fungicide will prevent significant levels of mildew appearing.

T1 – Key application timing to protect the plants' main burst of growth.

T2 – To ensure the crop is healthy at harvest, protecting the grain fill and green leaf areas, vital for maintaining grain quality. Strobilurins protect against foliar disease and chlorothalonil has demonstrated excellent control of biotic and abiotic spotting.

CORE PROGRAMME

T0 – Half rate fenpropimorph.

T1 – Kayak + Bravo + half rate prothioconazole.

T2 – Amistar Opti + half rate prothioconazole.

Agronomic information

Forensic is a relatively short variety with good resistance to brackling and medium maturity.

Variety	Resistance to lodging	Straw height (cm)	Ripening (+/- Optic, -ve=earlier)	Resistance to brackling
Forensic	7	73	0	8

Source: HGCA Recommended List 2010

Growth habit

Early spring: Semi prostrate

Tillering ability: Medium-High

Maturity: Medium

Drilling dates

Suitability for early drilling: N/A

Suitability for late drilling (April): Good

Optimum drilling date: Mid-March to early April (Scotland). March (England).

Recommended sowing rates

Seed rates are dependent on soil conditions at the time of drilling. The more difficult the environment the higher the seed rates should be to compensate for potential plant loss.

The table below shows the suggested number of seeds per square metre that should be planted under good conditions. These figures should always be used in conjunction with the thousand grain weight of the seed.

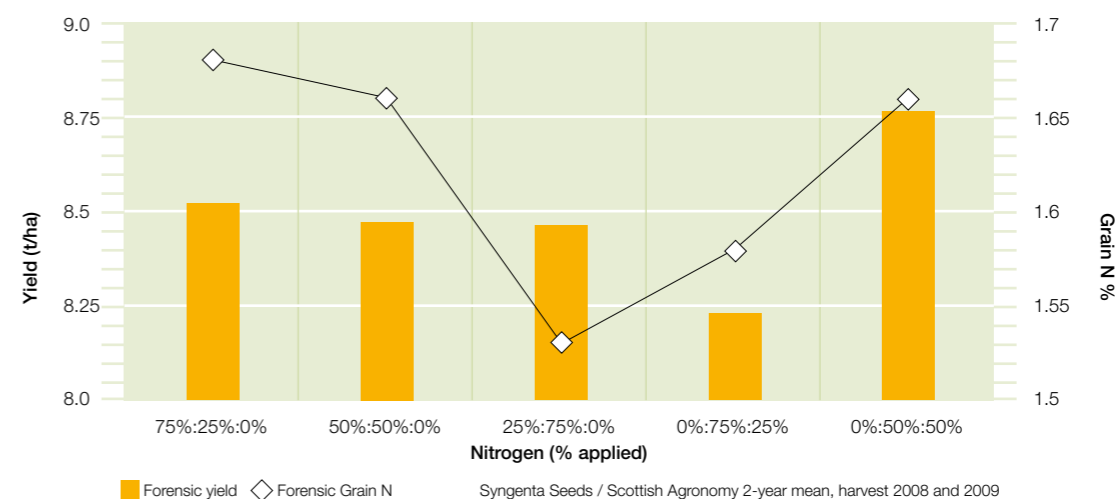
	Dec/Jan	February	March	April
ENGLAND	N/A	325	350	350-375
SCOTLAND	N/A	350	375	375-400

Nitrogen application

Varieties have different optimum nitrogen rates, therefore balancing N inputs to end market, variety and season is key. **Ensure you have checked levels with your contract and end market (malt or grain distilling).**

Syngenta Seeds trials work in 2008 and 2009 demonstrated that applying extra N was not the most effective way to increase yield or grain nitrogen. Growers should look at fertiliser *timing*, rather than quantity, to increase grain nitrogen levels. However, increasing the quantity of N applied will have some impact, particularly for those growers targetting the high protein grain distilling market (see grain distilling notes below).

The graph below shows the effect of timing and application rates on Forensic's yield and grain nitrogen levels. 1st application made pre-emergence, the 2nd at GS11 and the 3rd at GS26/29. Total applied = 120 kgsN/ha



Malt distilling

When growing Forensic for malt distilling, growers should consider the following advice:

- Apply all fertiliser by GS15.
- Seedbed condition will affect applications.
- With a good seedbed and in good conditions, apply 75% of total N when tramlines are visible, then 25% 2 weeks later.
- With a poor seedbed or poor establishment conditions apply 25% of total N to the seedbed and the balance when tramlines are visible.
- For late-drilled crops consider applying all N to the seedbed, or 75% in the seedbed and 25% when tramlines are visible.

Grain distilling

When growing Forensic for grain distilling, growers should consider the following advice:

- Land with good fertility is most suitable.
- Do not drill too early.
- Only apply 25% of N to the seedbed.
- Split top dressing between GS15 and GS26.
- Increase N input by 20% from malt distilling crops.

These figures are for guidance purposes only. You must work with your agronomist when calculating nitrogen rates and timings, taking into consideration end market requirements and the fertility of the field. You should also work within any Defra guidelines / restrictions.

PGRs

Normally not required, however Syngenta Seeds advises their use on lush crops, very fertile sites or if being grown for grain distilling where higher levels of fertiliser are required. In these cases use low rate Moddus (0.1 – 0.2 lt/ha) at GS29-30 to stabilise tillers and promote root development.

Quality

Forensic is a non-GN variety which is potentially suited to both malt and grain distilling. It is a variety that is well-adapted to, and targeted at, the Scottish market.

Grain quality

Specific weight: 66.8 kg/hl

Sieving % through 2.25mm: 1.5%

Sieving % through 2.5mm: 5.1%

Nitrogen content: 1.50%

TGW: Good

Harvesting

Top priority – with all quality crops it is critical to harvest the crop in the best condition as soon as moisture is correct. As with all malting barleys, the variety should be kept separate to prevent contamination and to maintain the maximum premium from the end product.

Storage management

Correct storage of malting barley is a priority to ensure harvest quality remains. Malting barley should be at a moisture of below 14.5% to minimise the risk of moulds and dried in such a way so there is no damage to germination.

Grain temperatures and moistures should be checked regularly to ensure quality is maintained and germination levels are kept at 98% plus.

Source: HGCA Recommended List 2010 – the full database can be consulted at www.hgca.com
On the 1-9 scales high figures indicate that a variety shows the character to a high degree (e.g. high resistance).

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