

LOW-GN
AND FULL IBD
APPROVAL



Publican

Spring Malting Barley

Parentage: Drum x Sebastian

Status: HGCA Recommended List 2010

SAC Recommended List 2010

Very high yielding distilling variety

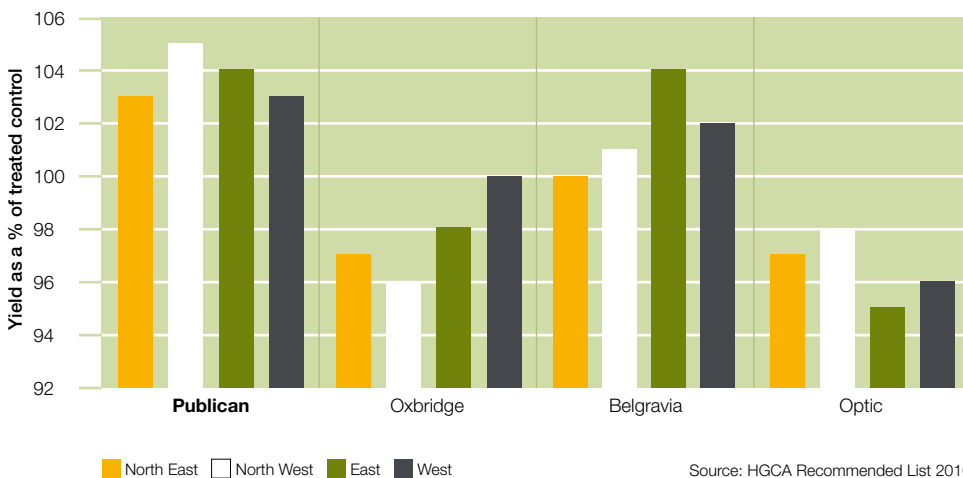
Yield potential

Publican is the highest yielding spring malting barley with full IBD approval for distilling.

Variety	UK Treated Yield % (7.2 t/ha)	UK Untreated Yield %
Publican	104	94
Oxbridge	98	88
Belgravia	102	94
Optic	97	80

Source: HGCA Recommended List 2010

Publican has produced excellent yields across all regions of the UK, demonstrating that it is a very adaptable and reliable variety to grow.



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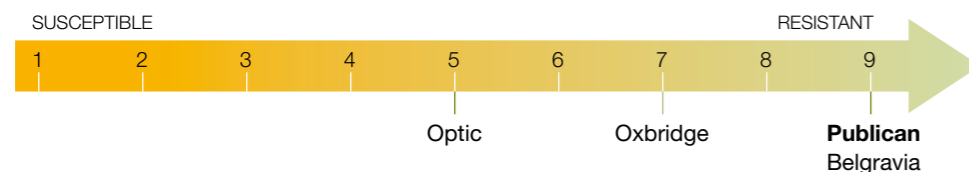
FEBRUARY 2010

Disease resistance

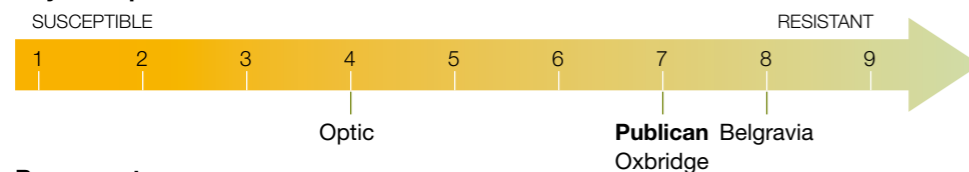
Publican has exceptional resistance to mildew (a maximum 9 rating) and good resistance to Rhynchosporium. Brown rust needs to be managed to enable the variety to achieve its full potential.

Disease resistance ratings

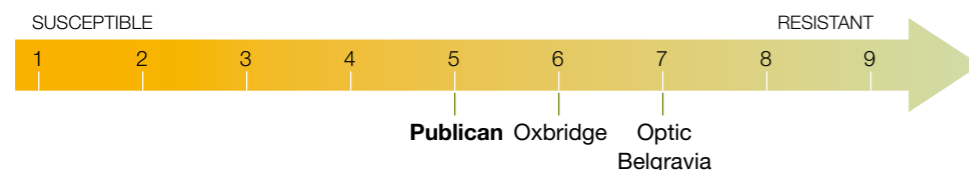
Mildew



Rhynchosporium



Brown rust



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.

T0 – Not normally required.

T1 – Key application timing to protect the canopy during the plants' main burst of growth. Brown rust control is required where there is a high risk of infection.

T2 – To ensure the crop is healthy at harvest, focus on brown rust control and protecting the grain fill and green leaf areas, vital for maintaining grain quality.

CORE PROGRAMME

T1 - Kayak + half rate epoxiconazole.

T2 - Amistar Opti + half rate epoxiconazole.

Agronomic information

Publican is a relatively short and very stiff variety with excellent resistance to lodging and brackling.

Variety	Resistance to lodging	Straw height (cm)	Ripening (+/- Optic, -ve=earlier)	Resistance to brackling
Publican	7	76	+1	7

Source: HGCA Recommended List 2010

Growth habit

Early spring: Semi prostrate

Tillering ability: Medium

Maturity: Medium-Late

Drilling dates

Suitability for early drilling: Good

Suitability for late drilling (April): Good

Optimum drilling date: February to March (Scotland).

January to February (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.

Publican is a **very** adaptable and robust variety which suits many field situations. Syngenta Seeds trial results confirm that in good conditions there are no detrimental effects to Publican's yield or grain quality by altering seed rates.

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	325	325	350	350-375
SCOTLAND	N/A	350	375	400

Nitrogen application

On average over 60% of the spring malting barley that UK maltsters wish to purchase from Scotland is under 1.55% grain N. 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.

Syngenta Seeds nitrogen timing trials in [Scotland](#) have shown that:

- Altering the timing of fertiliser has affected the level of grain N.
- Applications at GS11/12 (75%) & GS25 (25%) have given the lowest grain N levels.
- Yield and grain size have not been significantly affected by altering timings.
- Missing a seedbed application of fertiliser is only advisable in 'good' establishment situations. If the seedbed is poor or drilling date delayed then early fertiliser is crucial to enable good crop establishment.

In most situations the recommended amount of N would be 110-135 kg/ha. Where the application of nitrogen is limited to 120 kg/ha, growers may need to apply N later in order to increase protein levels.

The tables below show the effect of N application timing on Publican's yield and grain N levels.

	Seedbed	GS11/12	GS25	Yield t/ha	% Grain N
3-year mean	1	50%	0	7.90	1.61
	2	0	50%	8.01	1.63
	3	25%	75%	8.01	1.62
	4	0	75%	25%	7.84

Source: Syngenta Seeds / Scottish Agronomy, Harvest 2007-09
1st App = pre-em, 2nd app = GS11, 3rd app = GS25. Total applied = 120 kgsN/ha

In [England](#), growers should apply 50% at GS11 and 50% 14 days later.

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 or very fertile sites. In these cases use low rate Moddus (0.1 – 0.2 lt/ha) at GS 29-30 to stabilise tillers and promote root development.

Quality

Publican has full IBD approval for distilling in the UK. Publican is also currently being tested and evaluated across Europe for use as a brewing variety which may offer potential export opportunities. Publican appears to possess a very 'balanced profile' in terms of the quality attributes required by European customers, including good Hot Water Extract, good levels of DP and low beta glucan.

Grain quality

Publican has big, bold grain resulting in very low screenings.

Specific weight: 68.4 kg/hl

Sieving % through 2.5mm: 4.3%

TGW: Good

Sieving % through 2.25mm: 1.4%

Nitrogen content: 1.58%

Source: HGCA Recommended List 2010

Publican also has low gape and skinning levels.

Variety	Gape %	Skinning %
Publican	2	11
Oxbridge	2	20

Source: Syngenta Seeds Trials, Harvest 2007

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).

Disclaimer

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