



Grain Maize

An attractive cash crop option for spring sowing

Last autumn's poor weather meant some arable land was left unsown, and now with spring cereal seed in tight supply, alternative cropping options may be needed. Maize could be the solution.

Replacing cereals with maize this spring-sowing season could prove an attractive cash crop option for arable farmers with the added benefit of providing the opportunity to reduce blackgrass populations.

Crimped maize grain is highly valued in dairy and beef rations, so opportunities exist to market this high energy feed ingredient to livestock farmers. But attention to variety selection will be needed to maximise crop yields and financial returns.



Opportunities for Grain and Crimped maize

There are two markets for grain maize:

- 1) The smaller specialised **grain maize** market. This demands varieties with attractive yellow kernels like Yukon, which can be dried and sold for use in the bird and petfood industry.
- 2) The larger crimped **grain market**, where moist maize grains are treated with a preservative to create a digestible ready to use high energy feedstuff with a metabolisable energy content of 14.0-14.5 MJ/kg DM.

Since crimped maize is typically used as a substitute for wheat in rations, its sales value follows the wheat price, with a tonne of crimped maize being worth up to £200/t (@65% DM). In the UK, a crimped maize output of 12t/ha (@ 65% DM) is possible.

Gross Margin – Grain Maize	Per Hectare
Tonnes Output	9 tonnes (@15%)
Sales Value (@£190/tonne)	£1710
Seed Cost (@£80/50k unit)	£150
Fertiliser Cost (120N/ 40P/ 170K)	£330
Spray Cost (Herbicide + Fungicide)	£120
Total Variable Costs	£600
Gross Margin	£1,110
Drying Costs	£180
Net Margin (before harvesting costs)	£930

Variety Selection - Earliness and Yield

For grain maize, the crop needs to be left longer in the field, so varieties need good standing power. Another desirable feature is good cob cover as this reduces their susceptibility to fusarium infection (and probability of mycotoxins forming).

To harvest maize for grain the crop needs to be left in the field to reach a moisture content of 25-35% (DM of 65-75%) before being combined. The weather in 2012 demonstrated that growing high yielding, later maturing varieties is a high risk strategy. The main criteria when choosing which varieties to grow for a cash crop of grain or crimped maize are therefore earliness, and yield.



In recent independent trials, three new LG varieties - **Ambition**, **Yukon** and **Glory** - have demonstrated high grain yields and low moisture content making them suitable for both grain and crimping use.

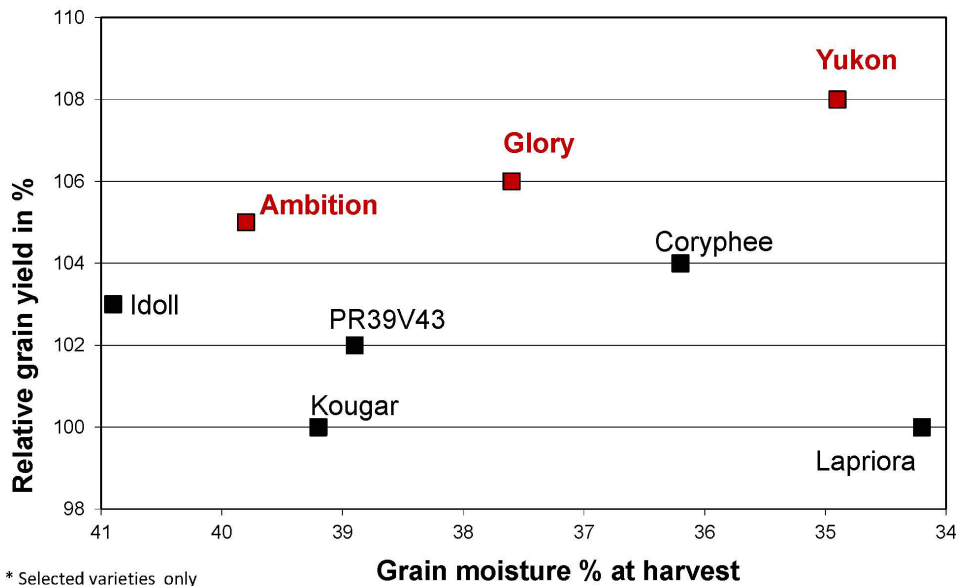
Danish Farmers' Union 2012 Grain Trial Results

Denmark has similar growing conditions to the UK with an increasing area grown for grain maize. The Danish Farmers' Union (DFU) conducts extensive variety trials.



DFU Grain 2012	Yield t/Ha (15% MC)	Relative Yield
Lapriora (control)	7.59	100%
Ambition	7.97	105%
Glory	8.05	106%
Yukon	8.19	108%

Yukon has also become popular in Denmark for grain as it has very good cob sheath cover, and has shown a reduced susceptibility to fusarium in DFU trials over the past two years.



Growing Grain Maize

When growing maize for grain, be aware that some forage varieties may not have the standing power to withstand the long season, nor the size of cob needed for a high grain yield.

New varieties - **Ambition**, **Yukon** and **Glory** – can be considered dual purpose and suitable for both forage and grain. Their earliness makes them suitable for all the main maize-growing areas, and their high DM and grain yields will ensure good financial returns can be achieved.

Farmers who would like more information on growing maize can contact Limagrain UK for a Maize Grower's Guide which includes comprehensive advice on variety selection, establishment, and crop care.

Tel: 01472 371471 or visit our website www.limagrain.co.uk/maize

