

Press release

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New style NIAB List gives more help to maize growers in selecting varieties

Two key changes to the 2012 NIAB Descriptive List for forage maize make it indispensable reading for farmers wanting to choose the best maize varieties for their situation.

The List, launched by BSPB and NIAB at the Dairy Event today now includes data on cell wall digestibility - an increasingly important factor for farmers feeding high levels of maize silage in the diet.

NIAB's Don Pendergrast explains: "With maize silage increasingly being fed at high levels in dairy cow rations, the digestibility of the plant's cell walls starts to play more of a role in the energy value of the silage.

"Growers may be familiar with the D value of their maize silage – this is based on an analysis of the whole plant. The cell wall digestibility – CWD - differs in being based on the analysis of just the leaf and stem, which account for 45-55% of the weight of the plant. Values of cell wall digestibility typically range from 50-60%, so any varieties with CWD in the late 50s can be considered more digestible. These will be broken down in the rumen more quickly by the animal, ultimately increasing potential dry matter intakes."

Another departure for the List is the removal of the maturity class system which, as Don Pendergrast explains, now hinders, rather than helps, growers to maximise their crop yields.

"When the maturity class system was first set up, the difference in dry matter at harvest between one maturity class and the next was equivalent to 4-7 days in target harvest date," explains Mr Pendergrast. "This was at a time when varieties would be drying down in September at a rate of 1-2% DM per week. However, plant breeding has made great advances in the last decade and modern varieties are drying down at a rate of 3-5% per week – so in fact there's only a difference in reaching target DM for harvesting of 2 days.

"Also, whilst the genetics of a variety remain the same over time, the maturity class bands move. For example, the variety Lincoln was a maturity class 7 when it first appeared on the List over 10 years ago, but today it would be a maturity class 5 or 6."

Robert Jackson, BSPB's variety trials coordinator commented: "BSPB's maize crop group made the decision to remove the maturity class system from the NIAB List because it was no longer working to the benefit of growers. In fact, it was leading them to restrict their variety selection to a certain maturity class, when they could have widened their options and chosen from a bigger range of material, perhaps choosing slightly later material and getting 5-6% more yield, for the sake of harvesting just 2 days later."

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Notes to editors

1. BSPB is the representative organisation for plant breeders in the UK. Its Forage Maize Crop Group organises independent Descriptive List testing for forage maize varieties.
2. Forage maize varieties are tested independently for 3 years (6 locations in years 1 and 2 and 9 locations in year 3) before addition to the Descriptive List. The trial work is carried out by NIAB and plant breeders under contract to the BSPB.
3. Trials are grown to standard protocols which are reviewed annually to ensure that they are relevant to the industry. All trials are independently inspected to ensure compliance with protocol and high standards of trialling and the data are independently verified and analysed by NIAB.

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