

Plan now to make the most of 2014's bumper maize silage crop

# Waste not, want not

With 25% extra maize silage produced on many dairy units in 2014, milk producers need to start thinking carefully about how they can extend the use of this bumper crop through 2015 and into next winter. It's too good to waste!

text **Philip Hainey**

**W**ith record maize yields in 2014, and in many cases unsurpassed quality, many UK maize growers now face the task of ensuring they do not waste any of this valuable and cost-effective resource in the year ahead. So says Grainseed's James Todd.

"In some parts of the country, producers grew enough maize silage to take them through this winter and a significant way through the next one too," he explains.

"Many produced more than 15 months supply of excellent quality forage in 2014 and not only were yields really good, but quality was also exceptional with dry matter consistently above 30% and good starch and energy content."

The bottom line is that many producers are entering 2015 with some important decisions to make about how they now manage this surplus stock to get the most out of it.

"They have three basic options," he says. "They can either start feeding more from now until turnout, plan to buffer feed it through the summer, or preserve it for next winter."

## Winter feeding

"Upping the maize:forage ratio in existing winter rations is a realistic proposition for many, but rations must be carefully balanced with a close eye on pH," stresses Mr Todd.

"Maize silage fed after Christmas is usually the best quality there is. Starch digestibility, in particular, is much higher and cows can access the energy much more easily.

"We're seeing MEs of up to 12MJ/kgDM on units, which more typically see between 11MJ/kgDM and 11.3MJ/

kgDM, and starch content is up to 40% compared to a more usual range of between 30% and 32%."

One downside of this high feeding quality is slightly low pH being detected in samples – as low as 3.8 in some silages.

"Although the grains were fully mature and hard, there were some very large green plants at harvest time which still contained some sugar," says Mr Todd.

"If you're going to feed more of this material you just need to be aware of the potential acidosis risk.

## Buffer benefits

"Much of this risk can be reduced simply by making sure you have sufficient fibre, such as straw, in the ration and balancing metabolised protein and energy. You should also be prepared to use rumen buffers, such as sodium bicarbonate, if necessary. It's vital to test forages regularly and keep an eye on the herd for any warning signs.

"With the potential higher dry matters of the material, you'll also need to just make sure overall ration dry matter stays at around 50% if you up the proportion of maize, otherwise intakes could suffer."

In most instances it is unlikely that all the surplus can be utilised in winter feeding, so the other option is to use it as a high quality buffer feed during the summer months.

"Unseen energy deficits – particularly in fresh calvers – can produce significant losses of condition during the summer, which result in health and production issues later in the year. More often than not, however, units do not have enough good quality forage to consider buffer feeding to address these.

"Buffer rations can not only produce immediate effects in terms of extra milk



James Todd: "Make 'surplus' decisions now"

production, but they can also have a positive knock-on effect throughout the following lactation and influence subsequent fertility and longevity."

He believes that maize forage's inherent feeding properties, including high levels of starch-based fermentable energy and low protein, make it the ideal foundation for a high quality forage-based buffer feed, he says.

"It's good practice to keep the best material for early lactation cows and high yielders, so you need to start planning how you will use it now.

"Work out how much you need for these 'priority' animals so you can balance silage stocks before maize harvest 2015 becomes available."

## Re-clamping technique

If upping maize inclusion rates in existing winter rations or using it in buffer feed during the grazing season is not appropriate for your herd, the final option is to keep the silage for next winter.

"But this is likely to involve re-clamping the saved material," says Mr Todd. "If you're lucky enough to have a small clamp with the likely surplus in it then it's worth just leaving that one alone. Test it first to make sure that all is well. Then just check that it is all properly sealed and it should be OK.

"If you have several clamps, then calculate what the surplus is likely to be and select the best clamps to keep unopened."

If all the material is in one clamp, then you'll need to be a bit more proactive to

ensure that no silage is wasted during the extended period. "If the clamp is in good condition then simply wait until turnout, tidy the edges and spray the face with an acid or anti-microbial additive – a biological one won't work – and then reseal it. A knapsack sprayer will work fine.

"If there's any doubt, clean out a smaller clamp and reclamp the surplus material from the larger one. If you've got a 300-cow herd, then be prepared to move up to 1,000 tonnes of silage.

"The silage should be re-rolled as if it were freshly cut, to exclude air, and the clamp should then be sealed.

"That should give you a great quality maize starter forage for the following winter, due to the higher starch digestibility of the older material compared to the newly clamped maize silage.

"Plus, you've got 'money in the bank' with regards to forage supplies and the

## Surplus earmarked for buffer feeding

Roger Mason, of Heaves Farm near Kendal, plans to feed his surplus maize as part of a high quality ration for high yielders throughout the summer. The ultra early maize varieties that he grew in 2014, Picker and Ardent, out yielded all previous maize crops grown for his 160-cow pedigree Holstein herd.

"We've been growing maize for a number of years now and after some fairly difficult years weather-wise many of our neighbours stopped growing it.

"But in 2014 we had ideal growing conditions and produced between 20%

and 25% more than the previous year, which was also a fairly good maize growing year for us."

The herd is split in two groups for the summer months, with the lower yielders being turned out and the higher yielders remaining housed. "So the plan is to feed the extra maize with grass silage in a 30:70 ratio, with 6.5kg per head of blend, 1kg per head of molasses, plus some chopped straw and protected fat.

"We're hoping that this will provide a high energy ration that will see the high yielders through until next November or December."

more home-grown feed resources you have, the greater control you have and the more opportunities to offset the lower milk prices.

"Whatever you do, don't waste this valuable resource – you must start planning now to make full use of the considerable potential it offers." |



*Bumper crop: maize silage yields and quality were both high in 2014*