Forage Legumes are an important part of the home-grown feeds policy on the dairy farm which will host the BGS Forage Legume Group meeting this June. Shirley Macmillan finds out what that policy entails.

A need for feed security means there will be 44ha (109 acres) of lucerne plus 39ha (96 acres) of red clover leys grown for Wil Armitage’s 250 dairy cows this year.

With organic feed prices rocketing from £160/t to £280/t in a season, Wil says he can’t afford to be caught short for the 7800-litre organic herd based at Tugby, Leics.

“We want some feed security, so we grow our own. We use legumes to build soil fertility and provide home-grown protein crops.”

“The fixed nitrogen is then used to grow our energy crops like Triticale for fermented whole-crop,” he says.

“We don’t buy-in any nitrogen, we just use some basic slag, muck and slurry. The lucerne has deep roots which pull up P and K from lower down.”

But growing legumes on heavy clay soils, lying 158m (527ft) above sea level, requires a flexible reseeding policy. While lucerne tends to be drilled into a regular seedbed because it is down for longer, red clover may be autumn or spring sown, drilled under or sown over, as conditions and the rotation dictate.

Wil grows lucerne on six different sites around the farm and aims to get four cuts a year, clamped in a sandwich with grass and clover silages. Crops are down for four to five years, although he says they can persist (yielding well) for up to seven.

Because it’s difficult to get hold of organic seed with UK trials data, Simon Broddle, forage production manager for Nickersons, has advised drilling a ratio of 65% organic Labella, with the maximum 35% allowed of conventional seed Marshall.

Weed control

Simon has also introduced Black medic as a form of weed control instead of herbicides. “The plant has small yellow flowers and a deep tap root and is a very short growing, ground-covering legume that we use to suppress weeds and allow the main crop to grow,” he explains. “It’s also a nitrogen fixer which helps the growth of the main harvester crop in a bi-cropping situation.”

The recommended seed rate is between 11kg and 17kg/ha, although Simon points out that as little as 3.5kg/ha will be enough to get it started. He adds that trial results from the University of Manitoba showed Black medic under a crop of flax increased yield by 21%. It produces black seed heads so is self regenerating and regrows its dense foliage.

Red clover

Red clover is included with late heading perennials in a mix for quality and high dry matter crop. It’s cut for silage, followed by grazing. “In the seed mix sown at 14kg/acre, there is 2kg of red clover, 1kg of Timothy and 11kg of tetraploid and diploid perennials. A second mix - Pro Plus Circle, purely for cutting, comprises 50% clovers: 4kg red clover plus 1kg white clover, 3kg Italian rye-grass and 2kg perennial rye-grass,” says Simon.

Mustard is used as a nurse crop to keep clover beetle in check and because it forms its own microclimate which helps maintain clover through the winter.

This results in a bigger, stronger plant in spring. “We achieve a 14% protein in the silage, with no applied nitrogen. This protein is in a natural form and is less degradable in the rumen,” Simon points out.

To attend the Forage Legume Farm Walk on June 16th, 2010, please register online with a credit or debit card at www.britishgrassland.com or return this slip with a cheque for £20/person payable to BGS and post to BGS, Unit 32, Stoneleigh Deer Park, Stareton, Kenilworth, Warwickshire, CV8 2LY

Name.................................................................Grassland Society............................Full BGS member yes/no
Occupation farmer/non-farmer Enterpriness dairy/beef/sheep Number attending............................
Names of other attendees.....................................................................................................
Address....................................................................................................................................
County..................................................Postcode................................................Main holding number
Telephone............................................................E-mail.................................................

Please note: places are at this farm walk are strictly limited and must be booked in advance.