

2010 WINNER: **JANIE CALDBECK**



A new generation of green manure crops under development for farmers could bring big benefits for gardeners who grow veg organically.

Green manures are plants grown for the purpose of being dug in to the soil to improve structure and add nutrients, reducing the need for artificial fertilisers.

Leguminous species of peas, beans or clover are commonly used as green manures because they can add nitrogen to the soil. But they can fail to do so if the soil or climate doesn't suit them.

Trials are therefore being conducted to identify the most ideal mixtures of leguminous species that will perform effectively in different soils and climates.

The new tailor-made mixtures will make nitrogen available to follow-on crops for a longer period, and will be even more environmentally friendly.

Trials to identify the mixtures are part of a project called Legume LINK, funded by the Department for Environment, Food and Rural Affairs (DEFRA). Led by the Organic Research Centre, Elm Farm, combinations of 10 legume and four grass species are being grown at research hubs and farms across the UK.

Besides monitoring nitrogen levels, scientists are looking at how well the legumes can suppress weeds and how growth habits of individual species can be best exploited. "Different legume species have different growth characteristics and nutrient demands" explained Dr Stephen Roderick, organic farming specialist at Duchy College in Cornwall. "Growing a mixture may allow us to improve the exploitation of available nutrients."

In addition to providing veg growers with the required amounts of nitrogen in the soil, the mixtures should impress by decomposing at more even rates. This will reduce the amount of nitrogen lost to the soil or air.

The diverse range of colourful flowers is also expected to attract large numbers of important pollinators like bees. Dr Roderick said that some of the less common species being trialed such as crimson clover and alsike clover could be "a useful addition to any gardener's portfolio."

Commercial veg growers could also stand to benefit substantially from a more diverse species mix. Dr Anton Rosenfeld from Garden Organic highlighted that "many growers know it is a good idea to put in a green manure but often have cash crops that don't finish until autumn when it is too cool for many green manures to establish reliably." He emphasised the need for "fast growing and rapidly establishing crops that are able to grow in different, often challenging, environmental conditions."

The new green manure mixes will be available on the market as soon as the ideal combinations have been identified.



2010 RUNNER-UP: **ROBERT DUFF**



The NFU has called for a ban on the sale and use of Chinese lanterns due to the risk to animal welfare, food safety and the environment.

The lanterns are already banned in Australia, Malta and parts of Germany. Constructed from paper, wire and bamboo they are a popular feature at social occasions, but when they land they can cause considerable damage to crops and livestock.

The wire components can be ingested directly by livestock, or can be chopped up, contaminating feeds such as hay and silage, rendering feed stocks unsafe for consumption. Although “eco-friendly” lanterns can be purchased, these still have to contain bamboo parts which are just as dangerous to cattle.

Lanterns landing on crops in the dry summer months can start fires, as their cotton and paraffin fuel cells can smoulder long after the flame has gone out.

Huw Rowlands of The Grange Farm, in Mickle Trafford, Cheshire told Farmers Weekly he had lost one of his pedigree Red Poll cattle after it ate the wire from a lantern and ruptured her oesophagus.

The much loved animal, known as “Underhills Sprite” was worth around £1000. On top of the value of the cow, Mr Rowlands also had to cover the £70 cost of disposing of the animal, which could not be sold for beef as she had died on the farm.

“These things are an absolute menace for cattle and sheep” he said. “If people knew what damage they could cause, I’m sure they would stop buying them”.

Leicestershire farmer John Duffin said he had to act quickly to put out a fire when several lanterns landed on

his field of cut straw. The lanterns also landed in a field of silage, adding potential for the ingestion of shards of metal at a later date.

Mr Duffin said: “Setting them off and not knowing where they are going to land is naïve... I really think lanterns should be banned, they are just too dangerous.”

Another recent incident involving a stray Chinese Lantern that landed in a field near Woodstock, Oxfordshire caused a fire that destroyed six acres of barley valued at between £3000 and £4000.

The NFU said compensation for incidents caused by the lanterns was difficult to obtain through insurance claims or law courts as identifying the origin of the lantern was difficult to prove. The RSPCA are also getting involved as the issue becomes one of animal welfare.

“We think consumers should be made aware of the potential risk to animals and would urge manufacturers to consider safer designs” said Dr Marc Cooper, the organisation’s senior scientific officer.

According to the Women’s Food and Farming Union sales of lanterns have soared in recent years. It said it had been told by one company that it had sold over 100,000 in the last year alone.

Farm minister Jim Paice has so far ruled out a full ban until more conclusive evidence has been gathered. The NFU and WFU are both urging farmers to come forward with evidence of damage caused to their livestock and crops.

