PRIFYSGOL ABERYSTWYTH UNIVERSITY

The winning combination of excellence in “challenge-led” and interdisciplinary research and a strong entrepreneurial culture is behind the successful plant-breeding programme at the Institute of Biological, Environmental and Rural Sciences at Aberystwyth University.

The researchers being honoured with this year’s award developed new strains of grasses that can make beef, lamb and dairy farming more productive and more environmentally friendly.

Aber High Sugar Grasses, developed through traditional breeding techniques to have increased sugar levels, allow cattle and sheep to use more protein from the grass. Tests show that this increases the production of meat and milk by 24% while reducing emissions of methane, a greenhouse gas, and other pollutants by up to 20%.

Marketed through a partnership with seed company Germinal Holdings, varieties of the grasses now account for some 175,000 hectares of UK grassland. Supermarkets Asda and Sainsbury’s, which promote the grasses on their farms, estimate that their use has cut carbon dioxide emisisons by 186,000 tonnes a year and increased profitability by £10 million a year.

Some varieties also provide sugar for conversation into bioethanol, a source of renewable energy.

Awards judge Chris Cobb, chief operating officer and secretary of the University of London, said Aberystwth’s innovations won out against an excellent field. “The combined impact on food production and the environment makes this bid doubly compelling and a worthy winner.”