

CALU BLIGHT RESISTANT POTATOES AND CALIENTE MUSTARD DEMONSTRATION TRIALS

This is the second year of CALU field trials and demonstrations of potato varieties suitable for growing in the blight prone areas of Wales. The trials are assessing the potential of new Sarpo clones in comparison to standard commercial varieties, with assessments of foliar blight, yield, and tuber blight post-storage.

Late blight, *Phytophthora infestans*, is a major problem for potato growers and causes an estimated loss of £50 million to farming each year. To prevent blight, commercial potato crops are regularly sprayed with fungicides during the growing season, but the blight fungus mutates and becomes resistant. Assessing blight resistant varieties is an alternative approach to combating the disease and one with particular value for organic growers.

CALU trials are confirming previous studies in Europe, which indicate that the most suitable blight resistant varieties are different from those currently preferred by growers. Some of the most blight resistant cultivars are the Sarpo varieties being introduced by the Sarvari Trust. As the production potential of these cultivars is being developed, CALU is also assessing how to control pest and disease attacks that, without affecting overall yield, reduce quality and marketability.

Alongside the blight variety trials, CALU is evaluating the potential of new varieties of mustard. According to David Frost, a CALU horticulture specialist, "wireworm is a major pest problem in potato crops and growers spend a great deal of money on pesticides often without achieving effective control." He adds that a small ADAS trial on the use of mustard to control wireworm in potatoes undertaken five years ago provoked many enquiries from around the world. "So we are very pleased this year to assess new Caliente mustard varieties. These have very high concentrations of glucosinolates and we are looking at their effect as a green manure before potatoes and assessing whether they control wireworms".

In a further trial, CALU is assessing the effect of sequential harvesting on yield, tuber size and pest damage. "We are evaluating the effect of different harvest times on three varieties" says David Frost, "Sarpo Mira and the standard varieties Desiree and Robinta".

Mira, which is a commercially available Sarpo cultivar, shows very good foliar blight resistance but like most of the Sarpo cultivars it is late maturing. The CALU trial is comparing the yield from each variety and the extent of pest and disease damage every ten days throughout August and September.

Farmers interested in potato production can contact CALU to arrange a second day of technical advice available under the Farming Connect scheme.

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