Organic Centre Wales Producer Conference 2009: Adapt and Survive

Aberystwyth, 15 October 2009

Workshop report: Seeds and varieties

Chair: Tony Little, OCW.

Laurence Hasson - Agrico Bioselect

- Agrico Bioselect imports seed potatoes to UK
- Working to develop the market for organic seed potatoes in UK
- Runs commercial trials annually, scoring varieties for grower-friendliness, disease resistance, yields, size, appearance, eating quality
- Breeding station in Netherlands is developing potatoes for organic production
- Novella and Toluca are blight-resistant varieties developed from South American strains backcrossed to commercial varieties
- Good varieties for organic growing are Milva, Sante, Rudolf (red),
- Blight resistant varieties are Novella, Toluca, Romano
- Ditta is a good salad variety on the Continent, not grown much here.

David Shaw, Sarvari Research Trust

- Sarvari Trust is a not-for-profit organization based at Henfaes near Bangor
- Blight-resistant potatoes were bred initially from *Solanum demissum* which is very slow-blighting but not immune; now bred from *S. bulbocastanum.*
- Blight is continually evolving and a new strain, Blue 13, means that new varieties have to be developed.
- Sárpo potatoes (originally from Hungary) provide good resistance to this, and six of our varieties are now on the UK National List, including Sárpo Mira and Axona, which have high natural resistance to both foliage blight and tuber blight.
- Newest varieties extend the range and include a second early variety, Sárpo Una, giving a good yield of new potatoes or a later, heavy yield of early bakers.
- The three early maincrop varieties are Sárpo Shona, Blue Danube and Kifli. These newest Sarpos have a lower foliage-blight resistance but high resistance to tuber blight.
- Blight resistance is correlated with late maturity
- Blight starts in SW England and Wales with the earlies, planted at Christmas for harvest in May and moves N and E through UK
- It takes 10 years to produce a new cultivar, but genetic marker technology speeds up the process.

Roger Hitchings – The Organic Research Centre, Elm Farm

- Use of F_1 hybrid seed is an issue for organic farmers because of the way they are produced
- 80% of carrot varieties, 85% of broccoli and 92% of salad cucumbers are F_1 hybrid. They don't breed true and you can't save the seed on farm; also they all mature simultaneously so problems with continuity.
- Production of F_1 hybrids means either (a) manually removing the stamens from flowers of the female parent or (b) using male-sterile strains (which have a trait known as cytoplasmic male sterility) for the female parent.
- Cytoplasmic male sterility can occur as a natural mutation, but it may also be induced by protoplast fusion.
- UK organic standards allow protoplast fusion, but Biodynamic Agriculture Association and IFOAM do not and are calling for a change to the UK standards
- Difficult to know when F_1 hybrids are produced by protoplast fusion as seed companies withhold information, but BDAA produces partial lists

- Some F_1 hybrids are available as open-pollinated variants.

Variety comparison – recommendations from the floor

- Apples: Blenheim Orange, Russets (disease tolerant) and John Downie (crab) were good
- Potatoes: Milva, Lady Balfour, Picasso (good eater), Nicola and Charlotte
- Carrots: Napoli (rapid growth, no wastage, carrot fly resistant), Rodelika (biodynamic – quick germination and top growth), Yellowstone (keeps well, good flavour and colour).