

CALU SOFT FRUIT WORKSHOP

11th October 2007

Bellis Brothers Country Market, Holt, Nr Wrexham

The market for locally grown produce is increasing. At the same time, there is increasing public awareness of the health benefits of soft fruits. Recognising that this is an area that offers valuable diversification opportunities for farmers in Wales, CALU organised a workshop day at Bellis Brothers Country Market to look at the production and management of a range of soft fruits.

Background to Bellis Brother Country Market

Bellis' has been growing strawberries for around 100 years. It used to be a mixed farm with a dairy unit, but gradually more and more land has been brought into horticultural production. It is now livestock free.

The farm operates a pick your own facility during June and July. Throughout the rest of the year, produce is sold through the farm shop. Bellis' sell all their produce direct – they do not supply any other outlets.

Historically, the area was very important for top fruit production. However, the orchards were grubbed up when the first EU subsidies for this were brought in. Remnants of the pear orchards can still be seen as pear hedges in some parts of the farm.

Location

The site is located at Holt, appx 4 miles east of Wrexham and 6 miles south of Chester, just off the A534.

Site and soils

Being on the Cheshire plain, the site is remarkably flat by north Wales standards. The soils are good loams with a tendency towards clayeyness in some areas. The lack of slopes causes some problems with drainage: this was particularly the case in 2007 with the exceptionally wet summer weather. Some areas were under water for several weeks. As a result, in these areas, the soil structure was severely compromised. Crops in the wettest areas were lost.

As the site is flat, it is very exposed. Extensive use is made of shelterbelts. The main species used in these are birch and alder. Willows had been tried in the shelterbelts,



but their roots had caused damage to the drainage system and so the trees were removed.

Fruit crops

The crops visited during this workshop were: blackcurrants, redcurrants, gooseberries, tayberries, loganberries, blackberries, raspberries and strawberries (field and tunnel).

BLACKCURRANTS

The first blackcurrant area visited was planted with the variety Sarek and had been in the ground for 15 years. The bushes were planted as cuttings, two plants per station, through black polythene. Establishment was very successful and the crop is still productive.

Problems

Vine weevil – although the black plastic was effective in suppressing weeds, it caused a problem with vine weevils. The weevils got underneath the plastic and infested the area, but were inaccessible for control measures.

Big bud mite / reversion virus – the main worry, particularly with an old planting, was that it would develop reversion virus, spread by the big bud mite. This causes the plants to “revert” to a more wild type. In established plantings, this problem is mainly controlled by application of sulphur early in blossom period. For new plantings, resistant stock is selected.

Pruning

The plants are pruned hard. One-third to a half of the old material is cut out. Pruning cuts are made as low as possible to avoid new wood being produced on “little legs”. The aim is to open the bush out and make sure that light is getting into the bottom of it.

Weed control

There is a SOLA for Round-up on blackcurrants, but care needs to be taken as the buds are never truly dormant. Dichlobenil granules can be used in February, but only once the plant is two years old.



Blackcurrants



Pruning blackcurrant

REDCURRANTS

Pruning

Almost the opposite approach is taken with pruning the redcurrants compared to the blackcurrants, as the redcurrants fruit on old wood. They are ideal grown as a hedge and cut with a hedge cutter just before picking (to expose the fruit).

Watershoots are unwanted, but it might not be worth investing time in removing them.

GOOSEBERRIES

The first plantation of gooseberries visited was of the variety Invicta. This is vigorous, high yielding and resistant to mildew. The bushes had not been fertilised.

Pruning

The aim is to grow the bush on a leg – this makes management easier. Initial pruning is aimed at developing the leg with an open wine glass shape above.

Pests and diseases

Mildew can be a problem, so resistant varieties are used. *Eutypa* (a fungal disease, spread by pruning) is increasing, but it is not excessively troublesome at Bellis’.



Gooseberry plantation

RASPBERRIES

Varieties

Tullameen (supermarkets’ preferred choice), Glen Garry, Glen Ample.

Planting

Planted appx 25cm between plants. If spacing is closer than this, fruit size will decrease.

With floracanes (traditional summer fruiting varieties), fruiting stems are cut down as soon as fruiting has finished, followed by final pruning and tying in during the winter.

Pest and diseases

Aphids are the main pest and they carry viral diseases. Plenty of leaf hoppers were seen at Bellis’. They are a relatively new problem being researched by ADAS.

Cane midges – none were seen, but they can be spotted by orange maggot under the bark at the bottom of the cane, or the tissue under the bark turning black. They cause cane blight.



Raspberries – 1st year

LOGAN AND TAYBERRIES

These are grown on a biennial system at Bellis' – i.e. one row will be fruiting and the other will be laying down wood each year. After fruiting, that row is cut right down to ground level and won't be cropped the following year.

Varieties – only thornless varieties are used.

Spacing – 3.5m in the row.



Tayberries on trellis

FIELD STRAWBERRIES

Strawberries are planted in the spring. There is no crop the first year, followed by three years of cropping.

Problems

Verticillium wilt – a soil borne disease which can only be treated by expensive soil sterilisation. *Verticillium wilt* is brought in with infected plant material (also potatoes and linseed). *Verticillium wilt* stops the plant from taking up water, causing wilting and death. Varieties resistant to wilt are selected. At Bellis' they have experimented with using Caliente mustard as a soil biofumigant to try and reduce the fungal burden. Tests for *Verticillium wilt* in the soil



Strawberry with Verticillium wilt

following Caliente mustard do not show a reduction in the fungus, but strawberry plants do seem to fair better. This may be a result of the green manure rather than any biofumigant action.

System

The field strawberries are grown on a matted row system. The rows are maintained with a shielded sprayer with cutting discs which is run between the rows. After harvesting, the rows are mown off and the between row area is rotovated.

Plants are planted in spring, not winter: winter plantings result in a lot of losses.



Field strawberries

Varieties

A wide range of varieties is grown at Bellis' to try and extend the growing season. These include – Christine, Marshmallow, Alice, Eros, Florence*, Symphony* and Judi Bell (*= recommended for organic). Between them, these varieties provide eight weeks of continuous cropping.

Weed control

Strawberries initiate the flowers for the summer fruit during the previous October, so care needs to be taken with herbicides otherwise mis-shaped fruits can result.

TABLE TOP STRAWBERRIES

Table top strawberries are grown in Spanish tunnels. The frames of the tunnels stay up all year round, but the covers have to be taken down before the bad winter weather starts. Covers are stored in black plastic to prevent further photo-degradation. Bellis' covers last for about five years.

Growing media – the strawberries are grown in a peat and coir mix in solid plastic troughs rather than bags (although the troughs are initially more expensive, they can be reused and so reduce waste).

Plants – Elsanta and 60day Elsanta (60 day plants are frozen runners which fruit 60 days after planting). Plants will do two seasons in the tunnel. After that, they may be lined out on Mypex outside, still with irrigation, to get a further crop from them.

Irrigation – drip irrigation is used,

with three nozzles per trough (= six plants, 60cm). Fertiliser is

mixed into the irrigation water. The level of feed is monitored by measuring electrical conductivity of both the water going into and that running off the troughs.



Tabletop strawberries



Tabletop strawberries from below

ACKNOWLEDGEMENTS

The workshop was led by Jim Cross (Farm Manager for Bellis') and Chris Creed (Horticultural Consultant for CALU and ADAS). Their combined knowledge made this an outstandingly enjoyable and informative event.