

Symphoricarpos ‘Magical Sweetheart’ as cut foliage

Interim Report

Year Ending 2007



David Kerr

Crops and Horticulture Development Branch
College of Agriculture, Food and Rural Enterprise
Greenmount Campus.

Symphoricarpos variety 'Magical Snowflake' as cut foliage

David Kerr, CAFRE, Greenmount Campus

Background

Symphoricarpos is related to the snowberry which grows wild in the hedgerows producing white berries. Symphoricarpos 'Magical Snowflake' is a relatively new variety which produces white berries in September and has small dark green leaves. It is easy to harvest and has an upright growing habit. Other varieties bearing pink berries are available. Symphoricarpos is a seasonal product used in flower bouquets and floral designs and is available in the Dutch Auctions.

Plant source

Gebr. Kolster B. V. Boskoop, Holland.

Cultural and management techniques

Plants were planted as bare root plants in Autumn 2004 at spacing of 1.5 m x 1.5 m giving 4,444 plants per ha. This is wider than the recommended spacing to allow more air circulation around the plants to reduce humidity and potential diseases.

Two new varieties with pink berries were planted in July 2007 (Symphoricarpos 'Bright Fantasy', and Symphoricarpos 'Red Pearl') at a spacing of 1 m x 1 m giving 10,000 plants per ha.

In the present trial woven polypropylene fabric was used as ground cover for weed control. Other forms of weed control could be polythene mulch or chemical weed control.

It is advisable to interplant with a pollinator to ensure good set of the flowers and a good show of berries. This is more important with some varieties than others. We did not use a pollinator and achieved reasonable numbers of berries.

Soil Nutrition

Fertiliser was applied according to soil analysis as a base dressing before planting in 2004 to bring soil indices up to the level required for field grown nursery stock. This involved increasing the soil indices for Potassium and Phosphate to above index 3. Nitrogen was also added at equivalent to 50 kg per ha.

In spring 2006 the woven polypropylene cover was pulled back and a compound fertiliser containing NPK (12.11.18) at 30 g/m² was added by hand as a top dressing. The crop was again top dressed with the same compound fertiliser at 10 g/plant in August 2007, much later than expected because of the very dry spring.

From experience elsewhere it is recommended to apply only Potash and no nitrogen to this crop to reduce the internode length.

Experience elsewhere, especially in Holland, shows that most foliage crops get 12:10:18 or 16:10:20 at a rate of 100 - 125 Kg N / ha.

Crop Pruning

The plants were cut back in early spring to about 12 – 15 cm above the ground (leaving about 2 eyes per stem). Pruning too late will result in a poorer harvest. Prune in March at the latest. If plants are pruned too high above the recommended 12 - 15 cm then this can result in shorter stems.

Pest and Diseases

Regular monitoring of pests and diseases was undertaken by crop walking every week during the May to September period and appropriate sprays were applied as in appendix 1 and appendix 2.

Symphoricarpos can be susceptible to powdery mildew and some powdery mildew was observed late in the 2005 season but no specific sprays were applied. In 2007 preventative spraying was carried out against mildew, especially in the summer months (every 2 or 3 weeks). In the case of powdery mildew attack it is recommended to spray every 5 – 7 days until the mildew disappears. Spray just before and during flowering, only in the evening and using bee-friendly preparations to help fertilisation.

Experience elsewhere indicates that *Symphoricarpos* can be susceptible to Silverleaf disease which causes a greyish/silvery sheen on the leaves. This should be treated by removing diseased stems and burning them. Keep them away from the rest of your crops at all costs.

Post Harvest Treatment

The most important post harvest activity is reduce contamination from bacteria and to keep the stems clean using clean secateurs. Stems should not be placed on the ground or unclean surfaces. Buckets and containers should be kept clean with a chlorine product. Chrysal RVB was used.

Results

Symphoricarpos grew well in our climate and produced high yields of stems (relative to other crops we have evaluated) which were harvested in September and October. In 2006 some stems tended to fall over with the weight of the berries. Stems were cut to specific lengths (see Table 1) with 10 stems per bunch.

Table 1 Yields of marketable stems per plant for *Symphoricarpos* 'Magical Snowflake' from plants planted in autumn 2004

Length of stem	60-70 cm	70-80 cm	80cm+	Total
2005	nil	nil	nil	nil
2006	7	20	9	36
2007	13	21	23	57

Conclusions

Large numbers of stems were produced per plant with an average of 36 stems per plant in 2006 and an average of 57 stems per plant in 2007. The Symphoricarpos plants have produced suckers close to the original plant and these have increased the size of the original plant contributing to higher yields than was expected. Other varieties do not exhibit this suckering and thus can have lower yields.

In 2006 some stems were weak and fell over with the weight of the berries whereas in 2007 stems were stronger. In 2007 berries were slower to form and numbers of berries were less. The crop showed some signs of nutrient deficiency as no top dressing had been applied in early spring due to the very dry conditions. Top dressing was applied in August but plants did not fully respond to this as was too late in growing season.

Acknowledgements

The author would like to acknowledge the following for their technical inputs:

Guy Trelford, Mairead McGuiggan, Teresa Maguire and Dr Raja Harun at Horticulture Development Centre, Greenmount Campus.

Robert Jan Kolster of Kolster Bv for technical advice.

Appendix 1 Management Notes for Symphoricarpos 2006/7

Please note that these were the actual tasks carried out and that this information is for guidance only. A spray programme should be worked out for each crop site.

Dates	Operation
08-Mar-06	Pruned Symphoricarpos (15 cm)
09-Jun-06	Sprayed with Toppel 10 (aphids)
30-Jun-06	Sprayed with Amistar + Decis (mildew and aphids)
11-Jul-06	Sprayed with Decis
06-Jun-07	Sprayed with Rose Clear
12-Jun-07	Sprayed with Aliette + Amistar (mildew)
19-Jun-07	Sprayed with Octave (leaf spots and general fungicide)
28-Jun-07	Planted out Symphoricarpos 'Bright Fantasy' and Symphoricarpos 'Red Pearl'
17-Jul-07	Sprayed with Decis (aphids, caterpillars etc)
17-Jul-07	Sprayed with Apollo (spidermites)
17-Jul-07	Sprayed with Systhane 6 Flo (mildew)
30-Jul-07	Sprayed with Maxicrop Triple (foliar feed)
09-Aug-07	Topdressed Symphoricarpos
15-Aug-07	Sprayed with Aliette
15-Aug-07	Sprayed with Amistar
15-Aug-07	Sprayed plots with Majestic(insects , aphids)
15-Aug-07	Applied Systhane 20EW and foliar feed
04-Oct-07	Harvested Symphoricarpos for yield count
22-Oct-07	Harvested some Symphoricarpos
31-Oct-07	Harvested 200 stems of Symphoricarpos for wholesaler and 90 stems for Florists.
02-Nov-07	Harvested 90 stems of Symphoricarpos
12-Nov-07	Harvested 60 stems Symphoricarpos
15-Nov-07	Harvested some Symphoricarpos on Monday 19th

Appendix 2

Chemical names of pesticides used in project

Chemical name	Group	Example of trade name
Deltamethrin	Pyrethroid insecticide	Decis
Cypermethrin	Pyrethroid insecticide	Toppel 10
Clofentezine	ovicidal tetrazine acaricide	Apollo 50 C
Myclobutanil	Conazole fungicide	Systhane 20 WE
Azoxystrobin	Strobilurin fungicide	Amistar
Mancozeb + Metalaxyl-M	Fungicide	Fubol Gold
Fosetyl – aluminium	Phosphonic acid fungicide	Aliette
Iprodione	Dicarboximide fungicide	Rovral
Prochloraz	Conazole fungicide	Octave
Mancozeb	Dithiocarbamate fungicide	Dithane
Natural plant extract	contact insecticide	Majestic