



Agriculture & Horticulture
DEVELOPMENT BOARD



Grower Summary

SF 92a

Field evaluation of new
mainseason strawberry
selections in the UK

Annual Report 2010

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Headline

Several selections are showing promise at the early stages of the trial. These include **EM 1733, Elegance, EM 1746, EM 1756, Elianny, Isaura, and Zumba.**

Background

The UK strawberry needs new varieties to meet the changing requirements of supermarkets and other outlets. Whilst **Elsanta** has occupied the largest area of production for many years because of its potential for high yield, good fruit quality and shelf life, its susceptibility to soil-borne disease and the cost of manipulating its season means that other varieties are being sought, with some, such as Sonata, increasingly planted.

Improved characteristics are especially desirable for:

- fruit quality (e.g. percentage Class I, size, flavour etc.).
- resistance to pest and disease
- extended seasonal cropping profile

Variety trials also help to identify varieties that could be used for specialist markets such as early and late season protected culture, PYO/direct and organic sales, so that growers are able to target specific markets and outlets. The trial offers an opportunity to test varieties from various breeding programmes around Europe that may be appropriate for British markets.

Results of the Variety Trials

For a more comprehensive review of the results please refer to the “Full Trial Report”.

The trial was sited within a commercial planting of the variety Elsanta on a farm in the West Midlands (Penkridge), courtesy of George Busby and Sons, Littywood Farm, Bradley, Stafford. Previously used for arable cropping, the land was sterilised prior to planting on raised beds. The trial was planted on 28 April 2010. The varieties or breeders’ selections chosen for the trial are listed below in Tables 4, 5 and 6, together with assessments of their key plant and fruit characteristics.

Table 4. Selections included in the trial

Variety / selection	Production season	Country of origin	Plant Supplier	Crown diameter supplied
Anitabis	Very early	Italy	Vivai Molari	9 mm
Zumba	Early	Netherlands	Fresh Forward	13 mm
EM 1643	Early	UK	Meiosis Ltd	11 mm
Elianny	Early-mid	Netherlands	Vissers	14 mm
Elsanta	Mid	Netherlands	Fresh Forward	16 mm
EM 1677	Mid	UK	Meiosis Ltd	11 mm
EM 1727	Mid	UK	East Malling Strawberry Breeding Club	14 mm
EM 1752	Mid	UK	East Malling Strawberry Breeding Club	11 mm
EM 1756	Mid	UK	East Malling Strawberry Breeding Club	10 mm
Elegance	Mid-late	UK	Meiosis Ltd	13 mm
Fenella	Mid-late	UK	Meiosis Ltd	9 mm
Isaura	Mid-late	Belgium	Fresh Forward	16 mm
EM 1607	Mid-late	UK	Meiosis Ltd	13 mm
EM 1682	Mid-late	UK	Meiosis Ltd	14 mm
Malwina	Late	Germany	Meiosis Ltd	Potted plants
Salsa	Late	Netherlands	Fresh Forward	17 mm
EM 1636	Late	UK	Meiosis Ltd	11 mm
EM 1733	Late	UK	East Malling Strawberry Breeding Club	14 mm
EM 1746	Late	UK	East Malling Strawberry Breeding Club	14 mm

Table 5. Plant characteristics and berry weight

Variety and season	60 Day potential 1 = poor 5 = good	Runner number 1 = low 5 = high	Plant vigour 1 = weak 5 =strong	Average Berry Weight (g)	Powdery Mildew 1 = suscept. 5 = resist
<i>Early</i>					
Anitabis	2.0	2	2	8.5	1
Zumba	3.0	3	3.5	14.2	3.7
EM 1643	2.5	2.5	4	10.3	3.7
Elianny	3.5	3.5	3.5	12.4	2.3
<i>Midseason</i>					
Elsanta	4.0	3	4	13	2
EM 1677	2.5	4	3	9.0	3
EM 1727	4.0	4	4.5	9.3	3.7
EM 1752	2.5	5	5	10.3	4
EM 1756	2.5	4.5	4.5	11.1	2
<i>Mid - Late</i>					
Elegance	3.0	3	3	10.8	1.7
Fenella	2.0	3	2.5	8.4	1
Isaura	4.0	3	3.5	12.3	1
EM 1607	3.0	3.5	3	9.3	1.7
EM 1682	3.5	4.5	4	11.2	3.7
<i>Late</i>					
Malwina	-	3.5	3.5	8.5	3.7
Salsa	4.0	3	4	10.3	3
EM 1636	2.5	3	3	10.3	3.7
EM 1733	3.5	2.5	3.5	11.8	3
EM 1746	3.5	3.5	4	9.8	3.3

Table 6. Fruit characteristics

Variety and season	Fruit Flavour 1 = poor 10 = good	Firmness 1 = poor 10 = good	Shelf Life 1 = poor 10 = good	Mean Brix Higher score = sweeter
<i>Early</i>				
Anitabis	7	5	4	6.3
Zumba	6	6	6	7.2
EM 1643	4	6	5	5.8
Elianny	6	7	7	6.0
<i>Midseason</i>				
Elsanta	8	8	8	7.9
EM 1677	5	8	6	5.8
EM 1727	6	6	6	7.9
EM 1752	4	6	6	7.5
EM 1756	6	9	8	7.5
<i>Mid - late</i>				
Elegance	5	7	7	6.8
Fenella	5	6	4	6.4
Isaura	6	6	6	6.4
EM 1607	6	4	4	6.7
EM 1682	6	6	6	5.5
<i>Late</i>				
Malwina	7	7	6	7.0
Salsa	6	6	5	6.7
EM 1636	7	5	6	6.3
EM 1733	6	8	7	6.6
EM 1746	6	8	8	6.4

The following varieties are of most interest to the industry. Further information on all varieties can be found in the Full Trial Report.

In the early group **Elianny** and **Zumba** performed well. These offer season extension over the **Elsanta** season.

Elsanta still produces well as a 60-day plant and is hard to beat. It scored well on flavour, firmness and shelf life with a good potential 60-day yield and large fruit. In this midseason group **EM 1756** also performed well.

Elegance and **Isaura** performed well in the mid late season varieties . These offer an extension to the **Elsanta / Sonata** season.

Amongst the late varieties, **EM 1733** scored consistently well, although its score for flavour was somewhat behind. **EM 1746** and **Salsa** also did well, with **EM 1636** scoring well for flavour. This maturity group is important to the UK strawberry industry so that the mainseason extends into that for the everbearer varieties.

Main conclusions

Although too early to draw any firm conclusions, a number of varieties are showing promise of significant improvement over present standards both in terms of fruit quality and season. The trial is continuing in 2011, when the maincrop season will give a fuller picture.