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The results and conclusions in this report are based on an investigation conducted over a one-year period. The conditions under which the experiments were carried out and the results have been reported in detail and with accuracy. However, because of the biological nature of the work it must be borne in mind that different circumstances and conditions could produce different results. Therefore, care must be taken with interpretation of the results, especially if they are used as the basis for commercial product recommendations.

# **AUTHENTICATION**

We declare that this work was done under our supervision according to the procedures described herein and that the report represents a true and accurate record of the results obtained.

Adam Whitehouse

Project Leader

East Malling Research

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Date 6 May 2015

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# **GROWER SUMMARY**

# Headline

• Eight new selections, four June-bearers and four everbearers, were selected from the 2014 East Malling Strawberry Breeding Club (EMSBC) preliminary trials to go forward to UK growers' trials.

# Background

The new contract for the East Malling Strawberry Breeding Club (EMSBC) was signed in June 2013 to follow on from the first tranche of the EMSBC breeding programme which had started in 2008. AHDB Horticulture continues to contribute to the EMSBC via project SF 96a. The main objective of the EMSBC strawberry breeding programme is to develop improved strawberry varieties, both June-and everbearing with increased yield, larger fruit size, an extended season of production and greater resistance to fungal diseases. This report covers three trials (June-bearer main crop, 60-day and everbearer trials) of EMSBC material assessed in 2014 as part of the preliminary trials held at East Malling Research.

This Grower Summary provides a precis of the results from the most promising selections of the 2014 EMSBC strawberry variety trials. More comprehensive information and images of the most promising selections are presented in the Full Trial Report.

All trials were performed on the Ditton Rough plot (sandy loam soil) at East Malling Research, New Road, East Malling, Kent ME19 6BJ. Each trial was planted as double rows at 0.6 m spacing into fumigated raised beds with polythene mulch and trickle irrigation. These beds were covered prior to flowering with polythene clad tunnels for rain protection and also with netting against bird damage.

## Main crop (June-bearer) trial

The main crop trial contained 87 new selections, nine advanced, re-cycled or re-trialled selections and five industry/season standard cultivars ('Elsanta', 'Fenella' 'Sonata', 'Malling<sup>™</sup> Centenary', and 'Vibrant'). It was established from misted tips planted on 30 July 2013.

#### 60-day trial

The 60-day trial included eight advanced selections, two breeding lines and three standard cultivars ('Elsanta', 'Sonata' and 'Malling<sup>™</sup> Centenary'). The trial was established using bare-root, cold-stored runners planted on 15 May 2014. Crown diameters of all plants were measured prior to planting.

#### Everbearer trial

The everbearer trial contained 37 new selections, and six advanced selections, plus standard cultivars ('Evie 2' and 'Finesse'). It was established from potted plants derived from pinned down tips, taken in August 2013, and planted on 1 April 2014. Plants were deblossomed during the second week of May and harvesting began on 23 June and continued twice weekly until 29 September 2014.

## **Results of variety trials**

The results from each of the 2014 trials are presented in Tables 1-5:

Class 1 yield (g/plant)	% Class 1	% large fruit (>35mm)	50% pick date
862	84	49	5 Jun
838	89	60	9 Jun
843	80	55	16 Jun
739	84	64	23 Jun
580	62	47	11 Jun
	Class 1 yield (g/plant) 862 838 843 739 580	Class 1 yield       % Class 1         (g/plant)          862       84         838       89         843       80         739       84         580       62	Class 1 yield (g/plant)       % Class 1 % large fruit (>35mm)         862       84       49         838       89       60         843       80       55         739       84       64         580       62       47

 Table 1. Main crop (June-bearer) trial – yield, fruit size and season

<sup>1</sup>Mean of two plots

Selection	Appearance (1-9)	ppearance Skin Flesh (1-9) firmness firmness (1-9) (1-9)		Flavour (1-9)	Shelf life (1-5)	Mean Brix
EM2192	5.6	5.9	6.1	5.2	2.8	7.0
EM2206	5.4	6.4	6.4	5.3	4.3	7.6
EM2358	5.2	5.8	5.9	5.8	3.0	9.6
EM2157	6.1	6.4	6.3	5.3	3.0	8.7
Elsanta <sup>1</sup>	4.8	5.9	5.4	5.0	-	7.2

#### Table 2. Main crop (June-bearer) trial - fruit quality scores

<sup>1</sup>Mean of two plots

Full descriptions of the fruit quality scoring system can be found in Appendix I of the main report, but as a guide 1=poor, 9=excellent, shelf life comparison 1=worse, 3=same,5 better than standard

Selection	Marketable yield <sup>1</sup> (g/plant)	% marketable yield	Mean crown diameter (mm)	Marketable (g/plant) yield per mm crown diameter	50% pick date
EM2056	116	72	10.4	11.1	3 Jul
EM2298	88	72	8.1	10.8	3 Jul
EM2044	110	77	8.6	12.8	7 Jul
EM2290	143	86	9.3	15.4	7 Jul
EM2299	78	82	10.1	7.7	7 Jul
EM2320	95	77	9.2	10.3	7 Jul
EM1998	156	74	8.6	18.1	10 Jul
EM2311	138	82	7.8	17.7	10 Jul
EM2335*	98	78	8.5	11.5	10 Jul
EM2344*	187	82	8.9	21.0	10 Jul
Elsanta <sup>3</sup>	150	71	11.5	13.0	7 Jul
Sonata	103	70	8.5	12.2	7 Jul
M Centenary	178	88	8.2	21.7	7 Jul

Table 3. 60-day trial – yield, crown size and season60-day yield, crown size and season

<sup>1</sup> >25 mm, <sup>2</sup> mean of two plots

\*EMSBC breeding lines

Full descriptions of the fruit quality scoring system can be found in Appendix I of the main report, but as a guide 1=poor, 9=excellent

Selection	Class 1 yield	% Class 1	% large fruit (>35mm)	50% pick date
	(g/plant)			
EMR635	1149	79	54	4 Aug
EMR644	1135	82	62	4 Aug
EMR647	1669	85	49	7 Aug
EMR645	1302	88	57	11 Aug
Evie 21	1586	75	66	11 Aug
Finesse <sup>1</sup>	1112	78	45	2 Aug

#### Table 4. Everbearer trial - yield, fruit size and season

<sup>1</sup>Mean of two plots

### Table 5. Everbearer selections. Fruit quality scores

Selection	Appearance	Skin firmness (1-9)	Flesh firmness (1-9)	Flavour (1-9)	Shelf life (1-5)	Mean Brix
EMR635	5.6	5.8	6.4	5.7	2.0	8.1
EMR644	5.9	6.3	6.3	6.1	3.6	8.2
EMR647	5.4	6.2	6.3	5.2	3.0	7.5
EMR645	5.8	6.4	5.8	5.4	3.0	8.6
Evie 21	5.8	5.5	5.9	4.7	2.8	6.2
Finesse <sup>1</sup>	5.3	6.1	6.4	5.0	-	7.6

<sup>1</sup>Mean of two plots

Full descriptions of the fruit quality scoring system can be found in Appendix I of the main report, but as a guide 1=poor, 9=excellent, shelf life comparison 1=worse, 3=same,5 better than standard

# **Main conclusions**

Main crop (June-bearer) trial

 Four new selections, EM2157, EM2192, EM2206 and EM2358 were identified as being of sufficient interest to progress to growers' trials in 2016 (60-day) and 2017 (main crop).

60-day trial

• EM2290 and EM2311 showed potential in the 60-day system, having a comparable marketable yield (grams per plant) to Elsanta, but with a higher percentage of Class 1 fruit.

• All the remaining selections will continue to growers' trials for assessment as 60-day plants in 2014 and main crop in 2015.

## Everbearer trial

• Four new selections, EMR635, EMR644, EMR645 and EMR647 were identified as being of sufficient interest to progress to growers' trials in 2016.

# Further information

More comprehensive information and images of the most promising selections are provided in the Full Trial Report.

# FULL TRIAL REPORT

### Introduction

This report covers three trials (June-bearer main crop, 60-day and everbearer) as part of the preliminary trials assessed at East Malling Research in 2014 on behalf of the East Malling Strawberry Breeding Club (EMSBC). The EMSBC was set up in 2008 to continue the national strawberry programme that has operated at EMR since 1983 with the AHDB Horticulture contributing via project SF 96.

A second tranche of the EMSBC was agreed in 2013 for a 10-year term (with a break clause after five years) and commenced on 1 June 2013. The funding members of the EMSBC are currently Berry Gardens Growers, CPM Retail, East Malling Services, AHDB Horticulture, Mack Multiples and Meiosis. AHDB Horticulture continues to contribute to the EMSBC via project SF 96a.

It is the intention of the breeding programme to release new varieties which show advantage over those currently available for a particular purpose or slot in the season. This advantage may be in terms of fruit quality, yield, resistance to diseases (to minimise pesticide applications and the reliance on soil fumigation), fruit size and display (to reduce picking costs) or any combination of these characters.

In addition the programme is benefiting from associated research projects funded at EMR that feed into the breeding work, primarily those associated with the development of molecular markers linked with disease resistance. The integration of basic science to benefit the programme has recently been demonstrated by the adoption of a marker-assisted approach to the design of a number of crosses that have been carried out (January 2015) with the specific aim of pyramiding markers associated with resistance to Verticillium wilt (*Verticillium dahliae*).

Progeny from these crosses will be genotyped in 2015 and selected lines will be assessed in the field in 2016 with the intention of selecting breeding lines or selections with cultivar potential that have multiple genes for resistance to this pathogen.

## **Trial methods**

All trials were performed on the Ditton Rough plot (sandy loam soil) at East Malling Research, New Road, East Malling, Kent ME19 6BJ. Each trial was planted as double rows

at 0.6 m spacing into fumigated raised beds with polythene mulch and trickle irrigation. These beds were covered prior to flowering with polythene clad tunnels for rain protection and also with netting against bird damage.

## Main crop (June-bearer) trial

The main crop trial contained 87 new selections, nine advanced, re-cycled or re-trialled selections and five industry/season standard cultivars ('Elsanta', 'Fenella' 'Sonata', 'Malling<sup>™</sup> Centenary', and 'Vibrant'). It was established from misted tips planted on 30 July 2013.

#### 60-day trial

The 60-day trial included eight advanced selections, two breeding lines and three standard cultivars ('Elsanta', 'Sonata' and 'Malling<sup>™</sup> Centenary'). The trial was established using bare-root, cold-stored runners planted on 15 May 2014. Crown diameters of all plants were measured prior to planting.

#### Everbearer trial

The everbearer trial contained 37 new selections, and six advanced selections, plus standard cultivars ('Evie 2' and 'Finesse'). It was established from potted plants derived from pinned down tips, taken in August 2013, and planted on 1 April 2014. Plants were deblossomed during the second week of May and harvesting began on 23 June and continued twice weekly until 29 September 2014.

### **Results and Discussion**

#### Main crop (June-bearer) trial

The planting was completed on schedule and the plants had established well by early autumn. The subsequent winter, which was unusually mild and wet, did not provide good growing conditions and this resulted in many of the 6-plant plots showing uneven vigour between the plants by spring 2014.

Yields on the standard varieties were below average, in most cases due to reduced average fruit size. It is likely that the mild weather from October to December resulted in an extended period of flower initiation, which would reduce fruit size, and some lines would not have received their optimum chilling requirement.

The percentage of unmarketable fruit was much higher than average and this was primarily due to misshapen berries, particularly on the earlier harvests. For example, the average percentage class 1 fruit on cv. 'Elsanta' was 62% but we would normally expect this to be around 80%.

The season was earlier than usual, with a small volume of fruit picked on 15 May and most of the mid-season selections and standards commencing on 27 May. Harvesting on most of the late-season selections was completed by 10 July.

The results from the most promising selections for UK growers is summarised in Table 6. Data on quality, yield and plant characteristics were considered together to identify the most promising selections and the EMSBC Board decided to progress four new selections for UK growers' trials in 2016/17. These selections were:

## EM2157 (late season)

This selection had a moderate Class 1 yield (739g per plant), but with good fruit size (64% >35 mm) and a high percentage of Class 1 fruit (84%). Skin and flesh firmness were shown to be firmer than cv. 'Elsanta' and the berries were glossy, with a regular shape and good skin colour (Figure 1.a). Flavour scores and °Brix levels were shown to be better than cv. 'Elsanta' (Table 6). Plants had moderate vigour with a good fruit display. EM2157 had a fruiting season that was few days later than cv. 'Florence' (Figure 1.b).



Figure 1.a. Fruit of EM2157



Figure 1.b. Cropping profile of EM2157

#### EM2192 (early season)

EM2192 had an early season, peaking slightly ahead of cv. 'Vibrant' but with a similar 50% harvest date (Figure 2.b). Compared to cv. 'Vibrant' it had a higher percentage of Class 1 fruit (84%), a similar Class 1 yield (862g per plant) but with smaller average fruit size (49% >35mm). Plants had moderate vigour with good fruit display and showed strong repeat blooming by mid-June. Attractive, glossy berries were produced at harvest (Figure 2.a) but tended to darken during shelf life tests. Sensory flavour scores were variable but °Brix was found to be higher than cv. 'Vibrant' (Table 6).



Figure 2.a. Fruit of EM2192



Figure 2.b. Cropping profile of EM2192

#### EM2206 (early-mid season)

This selection had an excellent percentage of Class 1 fruit (89%) giving a Class 1 yield of 838g per plant. Fruit size was also good with 60% being greater than >35mm. The 50% harvest date was between that of cvs. 'Vibrant' and 'Elsanta', with a peak in production around 9 June (Figure 3.b). Plant vigour was slightly uneven in the plot but most plants showing strong repeat blooming by mid-June. Berries were glossy with a regular shape (Figure 3.a) but on some occasions displayed a large calyx with some white necks. The skin colour of EM2206 was slightly darker than cv. 'Elsanta' but shelf life scores were superior. Both flesh and skin firmness was judged to be good (Table 6) and the fruit was not prone to bruising, even under hot conditions. Sensory flavour scores and Brix levels were similar to cv. 'Elsanta'.



Figure 3.a. Fruit of EM2206



Figure 3.b. Cropping profile of EM2206

#### EM2358 (late season)

EM2358 gave a moderately high Class 1 yield (843 grams per plant) and good fruit size (55% >35mm). Cropping was slightly later than with cv. 'Florence' (Figure 4.b). Plants had moderate vigour. Berries were glossy with good colour but on occasion exhibited an irregular shape combined with prominent seeds (Figure 4.a). Fruit was firm, with consistently good sensory flavour scores and high Brix levels (mean of 9.6), and shelf life scores comparable to cv. 'Elsanta'.



Figure 4.a. Fruit of EM2358



Figure 4.b. Cropping profile of EM2358

#### 60-day trial

The trial established well but the marketable yields produced from the standards were lower than expected. Unmarketable fruit was attributed primarily to damage from seed beetle and misshapes. Harvesting commenced early, on 30 June, and fruit was picked and recorded twice weekly until 7 August. The results of this trial are shown in Table 7.

Of the selections that had been selected in 2014 to go forward for UK growers' trials, EM2290 and EM2311 showed the greatest potential in the 60-day system having a comparable marketable yield to cv. 'Elsanta'. EM2299 gave the lowest yield and lowest mean Brix level, but remains of interest as it is a very-early selection, cropping one week earlier than cv. 'Vibrant' in the 2013 main crop trial.

Of the more advanced selections (EM1998, EM2044, EM2056), only EM2056 has gone forward to large-scale growers' trials. EM2056 gave a similar performance to that shown in the 2012 60-day trial, with only a moderate yield but slightly earlier season and a high mean Brix score.

EM2344, which has been retained as an EMSBC breeding line, produced a high yield from a relatively small plant, with 82% of the fruit being marketable, similar to the highest yielding standard cv. 'Malling<sup>™</sup> Centenary'. Fruit was attractive and had good eating quality, similar to that reported in the 2013 main crop trial. In addition it had a slightly later 50% harvest date in this trial than the mid-season standards, but as main crop it was shown to crop at a similar time to cv. 'Elsanta'. Its performance in the 60-day trial will be taken into consideration when it is used as parent.

The cv. 'Malling<sup>™</sup> Centenary' outperformed the other standards, and all but one of the selections (EM2344), in terms of marketable yield and % or marketable fruit.

The EMSBC Board agreed that those selections already selected for assessment in growers' trials in 2015/16 should continue and that no additional selections should go forward based on these trial results.

#### Everbearer trial

The trial plants established and developed well after planting. Warm temperatures in July,

with elevated day and night temperatures over a prolonged period, led to fruit of some selections rapidly becoming overripe and may account for downgrading of scores for appearance (dark skin) and firmness (weak skin and softer flesh). These temperatures may also have led to thermo-dormancy in some selections.

There was also some evidence of plant collapse within the plot, indicating that the fumigation of the soil may not have been totally effective, and this may have subsequently led to lower yields with some selections.

Damage to fruit from strawberry seed beetle became evident at the end of July and accounted for a decrease in the percentage Class 1 fruit through until early August, when the pest was brought under control. Warm, dry temperatures in September allowed picking to continue until the end of the month.

The results from the most promising selections are summarised in Table 8 and the EMSBC Board decided to progress four new selections to UK growers' trials in 2016:

#### EMR635

This selection had a comparable Class 1 yield to cv. 'Finesse' (1,149g/plant), but with larger fruit size (54%, >35mm). Shape was consistent throughout the season, although skin colour was judged to be slightly darker than standards (Figure 5.a.) which may explain inferior shelf-life scores. Flavour was pleasant with a subtle aromatic aftertaste which was well-liked by visitors, and a mean °Brix level of 8.1 was better than the standards. EMR635's cropping profile was smoother than for the standards (Figure 5.b.), with a 50% harvest date of 4 August. Plants were found to be uneven in the EMR plot, but generally appeared to be more vigorous than cv. 'Finesse' with a more open habit with well-displayed fruit. No mildew was observed on plants or fruit, but two plants had died suggesting some susceptibility to a soil-borne disease. Runner production was low.



Figure 5.a. Fruit of EMR635



Figure 5.b. Cropping profile of EMR635

#### **EMR644**

This selection had a good yield of Class 1 fruit (1,135 grams per plant) with large fruit size (62% >35mm) and good percentage of Class 1 fruit (82%). Berries were firm but had a slightly dark skin colour on some picks (Figure 6.a.). Although this did not adversely affect shelf life scores which were higher than with the standards. Flavour was very good throughout the season, often being described as sweet (mean °Brix 8.2) and juicy with a complex/full flavour. The cropping profile for EMR644 was similar to cv. 'Finesse' but with a peak in production in early-July (Figure 6.b.). Plants were healthy with a compact habit and a good fruit display. Production of runners was moderate.



Figure 6.a. Fruit of EMR644



Figure 6.b. Cropping profile of EMR644

#### **EMR645**

EMR645 gave a high yield (1,302 grams per plant) and an excellent percentage of Class 1 fruit (88%) which was also of a good size (57%, >35mm). Berries had a uniform shape and colour (Figure 7.a.), and although flavour scores were judged to be variable throughout the season, the mean °Brix level of 8.6 was greater than for the standards. Skin and flesh firmness scores were good and this was reflected in shelf-life scores which were comparable to cv. 'Finesse'. Production was slightly later than cv. 'Finesse' and had an identical 50% harvest date to cv. 'Evie 2', with the peak in production being noted in early August (Figure 7.b.). Plants were dense with uneven vigour in the EMR plot but appeared healthy and produced runners prolifically.



Figure 7.a. Fruit of EMR645



Figure 7.b. Cropping profile of EMR645

#### **EMR647**

EMR647 was the highest yielding of the new selections in 2014, with a Class 1 yield of 1,669 grams per plant. This was coupled with a high percentage of Class 1 fruit (85%), but only moderate fruit size (49%). Berries were glossy, with an orange-red colour, and a globose-conic shape with slightly raised seeds (Figure 8.a). Firmness and shelf-life scores were comparable to cv. 'Finesse', and although flavour (average °Brix 7.5) was variable it was judged to be similar or better than both cvs. 'Finesse' and 'Evie 2' (Figure 8.b). Production was greatest from mid-July through to mid-August, with a 50% pick date that was intermediate between cvs. 'Finesse' and 'Evie 2'. Plants appeared healthy and were moderately vigorous with a dense leaf canopy.



Figure 8.a. Fruit of EMR647



Figure 8.b. Cropping profile of EMR647

Selection	Class 1 yield (g/plant)	% Class 1	% large fruit (>35mm)	Appearance (1-9)	Skin firm (1-9)	Flesh firm (1-9)	Flavour (1-9)	Shelf life score (1-5)	Mean °Brix (min-max)	50% pick date	Vigour (1-9)	Density (1-5)	Display (1-3)
EM2157	739	84	64	6.1	6.4	6.3	5.3	3.0	8.7 (6.9-10.5)	23 Jun	6	3	3
EM2192	862	84	49	5.6	5.9	6.1	5.2	2.8	7.0 (4.2-9.3)	5 Jun	6	3	3
EM2206	838	89	60	5.4	6.4	6.4	5.3	4.3	7.6 (5.3-12.6)	9 Jun	6	3	3
EM2358	843	80	55	5.2	5.8	5.8	5.8	3.0	9.6 (6.9-12.4)	16 Jun	6	3	3
Elsanta <sup>1</sup>	580	62	53	5.8	5.5	5.9	4.7	-	7.2 (4.9-11.8)	11 Jun	5	3	3

# Table 6. Main crop (June-bearer) results

<sup>1</sup>Mean of two plots

The key to fruit and plant characteristics scores are shown in Appendix I

N Selection	Marketable	l Inmarketable <sup>2</sup>	% marketable	Mean crown	Marketable (g/plant)		°E	Brix
	yield <sup>1</sup> (g/plant)	yield (g/plant)	yield	diameter (mm)	yield per mm crown diameter	50% pick date	Mean	Range
EM1998	156	56	74	8.6	18.1	10 Jul	9.5	8.3-11.6
EM2044	110	32	77	8.6	12.8	7 Jul	7.8	6.5-9.3
EM2056	116	46	72	10.4	11.1	3 Jul	9.6	7.8-11.2
EM2290	143	24	86	9.3	15.4	7 Jul	8.4	7.9-9.1
EM2298	88	35	72	8.1	10.8	3 Jul	8.3	7.6-8.7
EM2299	78	17	82	10.1	7.7	7 Jul	7.3	6.6-8.3
EM2311	138	30	82	7.8	17.7	10 Jul	9.2	8.0-12.6
EM2320	95	28	77	9.2	10.3	7 Jul	9.0	8.7-9.9
EM2335*	98	28	78	8.5	11.5	10 Jul	8.1	6.8-6.9
EM2344*	187	40	82	8.9	21.0	10 Jul	8.5	6.6-10.1
Elsanta <sup>3</sup>	150	62	71	11.5	13.0	7 Jul	8.5	6.4-11.0
Sonata	103	46	70	8.5	12.2	7 Jul	9.1	7.8-12.0
M Centenary	178	25	88	8.2	21.7	7 Jul	9.3	7.8-10.9

Table 7.	60-day trial results
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 $^{1}$  >25 mm,  $^{2}$  < 25mm & waste,  $^{3}$  mean of two plots

\*EMSBC breeding lines

The key to fruit and plant characteristics scores are shown in Appendix I

Selection	Class 1 yield (g/plant)	% Class 1	% large fruit (>35mm)	Appearance (1-9)	Skin firm (1-9)	Flesh firm (1-9)	Flavour (1-9)	Shelf life score (1-5)	Mean °Brix (min-max)	50% pick date	Vigour (1-9)	Density (1-5)	Display (1-3)
EMR635	1149	79	54	5.6	5.8	6.4	5.7	2.0	8.1 (5.6-10.8)	4 Aug	5	2	3
EMR644	1135	82	62	5.9	6.3	6.3	6.1	3.6	8.2 (5.0-11.1)	4 Aug	4	3	3
EMR645	1302	88	57	5.8	6.4	5.8	5.4	3.0	8.6 (5.6-11.9)	11 Aug	6	4	2
EMR647	1669	85	49	5.4	6.2	6.3	5.2	3.0	7.5 (4.9-10.9)	7 Aug	5	4	2
Evie 21	1586	75	66	5.8	5.5	5.9	4.7	2.8	6.2 (2.6-8.3)	11 Aug	6	5	3
<i>Finesse</i> <sup>1</sup>	1112	78	45	5.3	6.1	6.4	5.0	-	7.6 (4.9-11.2)	2 Aug	4	3	3

# Table 8. Everbearer trial results

<sup>1</sup>Mean of two plots

The key to fruit and plant characteristics scores are shown in Appendix I

# Conclusions

## Main crop (June-bearer) trial

 Four new selections, EM2157, EM2192, EM2206 and EM2358 were identified as being of sufficient interest to progress to growers' trials in 2016 (60-day) and 2017 (main crop).

# 60-day trial

- EM2290 and EM2311 showed potential in the 60-day system, having a comparable marketable yield (grams per plant) to cv. 'Elsanta', but with a higher percentage of Class 1 fruit.
- All the remaining selections will continue to growers' trials for assessment as 60-day plants in 2014 and main crop in 2015.

# Everbearer trial

• Four new selections, EMR635, EMR644, EMR645 and EMR647 were identified as being of sufficient interest to progress to growers' trials in 2016.

# Knowledge and Technology Transfer

A joint AHDB Horticulture/EMRA fruit walk was organised for the 26 June 2014. However this meeting was cancelled due to lack of fruit. This was a consequence of an early and condensed season, with fruit production falling off sharply the week before the AHDB Horticulture event. Attempts to reschedule to an earlier date were unsuccessful due to existing industry events.

However AHDB Horticulture representatives were able to attend an EMSBC Board meeting 'strawberry walk' on 17 June 2014 and updates on the programme, trials and selections were made to AHDB Horticulture representatives at the EMSBC Board meetings in August and October 2014 and January 2015.

# **Appendix 1**

## Scoring system employed for fruit and plant characteristics

### Fruit characteristics:

Appearance 3=poor 5=acceptable 7=attractive Skin Firmness 3=weak 5=acceptable 7=tough Flesh Firmness 3=soft 5=acceptable 7=firm Flavour 1=unpleasant 3=poor 5=acceptable 7=pleasant 9=very pleasant Shelf life: Comparison to standard 1=Much worse 2=Worse 3=Same 4=Better 5=Much better Plant characteristics: Plant Vigour 1=weak 5=intermediate 9=excessive Plant Density 1=open 3=intermediate 5=dense Fruit Display 1=poor 2=intermediate 3=good