

2006-07 Annual Strawberry Plasticulture Variety Trial Results

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Objective

Continued variety and propagation techniques for the annual plasticulture strawberry production system.

Plot design

All treatments were replicated four times in a complete randomized block design.
10 plants per replication

Culture

Two tip-plugging dates July 1 and August 1 2006
48 cell tray packs
Pre-bedding fertility 16-8-8 @ 350Kg/hectare +112.5 Kg Mono-ammonium phosphate/hectare
High-beds 20cm high x 75 cm wide at shoulder
Centered single drip tape 1.7 liters/hr/emitter at 30cm spacing
Field planted on September 8 2006
Overhead irrigation 2 hours on September 1st and 2nd for establishment
Daily drip applications or as needed using soil tensiometers @15 and 30cm
Insect and disease management as needed
Runners removed in November 16 2006
Deploy 1oz/sqyd floating row cover (FRC) for over-wintering, November 30
Remove FRC March 7 2007, clean off dead plant material
Fertigate w/ 17Kg nitrogen + 0.7Kg solubor
10-40% bloom on April 3rd 2007
Use FRC to cold protect April 9 -17 2007, no visible bloom damage
May 10th first harvest
June 10th last harvest

Results

A mild Fall and Winter provided very good growing conditions for the annual strawberry plasticulture system. However a low of 10f on March 8th 2007 which tied the winters lowest temperature, killed many of the primary flower buds that had not yet emerged out of the crown. This contributed to the smaller fruit size then would have been expected from the first fruit harvested and led to a smaller overall average fruit size.

Despite this loss of early fruit, yields were fairly decent. The “standard” Chandler, tip-plugged on August 1st yielded 1.25 lbs/plant which is slightly higher than the average yield for this variety. Evie-2, a day-neutral type from the UK yielded the highest at 1.8 lb/plant with

decent fruit size, followed by Camarosa at 1.69 lb/plant. Although Carmine and Ventana both yielded well, these California varieties have never had the flavor in my opinion to compete with Chandler. I am impressed with the performance and quality of Daraselect. By and far the best quality in flavor and shape was the day-neutral from California Albion, however it was the lowest yielder in the context of this management system.

Variety	Plug date	Marketable yield (gr/plant)	Average Fruit size (grams)	Cull weight(grams)
Raratan	August 1	503 de	11.8 de	49.6 ab
Carmine	July 1	601 bcd	11.2 e	56.9 a
Carmine	August 1	666 bcd	11.2 e	52.4 ab
Evie-2	August 1	838 a	13.6 b	42.4 bc
Chandler	August 1	583 bcd	11.5 e	40.1 bc
Camarosa	August 1	768 a	13.1 bc	42.1 bc
Ventana	July 1	665 b	16.0 a	35.4 c
Ventana	August 1	664 b	15.3 a	35.2 c
Albion	August 1	265 f	16.2 a	4.5 d
Daraselect	August 1	541 cd	11.3 e	34.4 c
Daraselect	July 1	623 bc	12.8 bcd	43.8 abc
Bish	August 15	404 e	12.2 cde	35.4 c
Treasure	August 15	553 cd	13.2 bc	35.5 c
Chandler	August 15	502 ce	12.3 cde	43.6 abc
				Means followed by the same letter(s) within a column are not significantly different at the 5% level (Duncan multiple-range t-test)