

# Technical Data Report

## Multicolor Ecological Agriculture Group Inc.

### Effects of Multicolor Crop on Peach Production

#### Objective

The objective of the trial was to determine the effects of Multicolor Crop on the production and quality of peaches.

#### Materials and Methods

A field trial was conducted in a commercial peach (*Prunus persica* cv. White Lady) orchard in La Punta, Graneros, Chile. Two sets of nine rows of trees were designated for treatment. One set was treated with Multicolor Crop obtained from Multicolor Ecological Agriculture Group Inc., USA. The other set of rows was treated with the traditional program used by the grower. Cultural practices, including fertilization and pest management, followed local practices and were the same throughout the orchard. Multicolor Crop was applied at pre-bloom, fruit set and fruit color change at 1.5 l/ha in a total output volume of 1,500 liters per hectare. Fruits were harvested from December 22 through 31. At harvest, 40 individual fruits were selected at random from the treated and control areas, weighed, measured for equatorial diameter (width) and polar diameter (height). Twenty fruits were measured for firmness using a pressure gauge. Measurements were recorded on both cheeks, both keels and the shoulder (stem end) and point (blossom end) of each fruit.

#### Results

Treatment with Multicolor Crop significantly increased the average fruit mass from 179 to 193 grams (Table 1) and improved fruit quality over traditional program. Although not significantly different, there was an increase of fruit height from 709 mm to 731 mm and the fruit diameter from 674 mm to 689 mm. The product also significantly increased firmness of the fruit point by 12.5% and improved overall firmness of the fruit by 2.4% as indicated by the average pressure measurements on fruit cheeks, keels, shoulders and points (Table 2).

Table 1. Effects of Multicolor Crop on mass and size of White Lady peaches. Graneros, Chile.

Parameter	Control (Traditional Program)	Multicolor Crop
Fruit mass (g)	179 b*	193 a
Equatorial diameter (mm)	709 a	731 a
Polar diameter (mm)	674 a	689 a

\*Means followed by different letters are statistically significant ( $p < 0.05$ ). Means of 40 fruits.

Table 2. Effects of Multicolor Crop on firmness of White Lady peaches. Graneros, Chile.

Measurement Location	Pressure Measurements (g)	
	Control (Traditional Program)	Multicolor Crop
Cheek 1	12.20 a*	12.45 a
Cheek 2	12.40 a	12.70 a
Keel 1	9.87 a	9.76 a
Keel 2	10.22 a	10.28 a
Shoulder	10.53 a	10.45 a
Point	8.86 a	9.97 b
Means	10.68	10.94

\*Means followed by different letters are statistically significant ( $p < 0.05$ ). Means of 20-40 fruits, replicated five times.

Percent of large fruits (188 to 205 mm in diameter) increased from 31 to 48% and extra-large fruits (206 to 229 mm) from 9 to 20% with Multicolor Crop. The product eliminated small fruits (125 to 153 mm in diameter) and reduced percent of fruits in 154 to 166 mm size from 18 to 2 % (Figure 1).

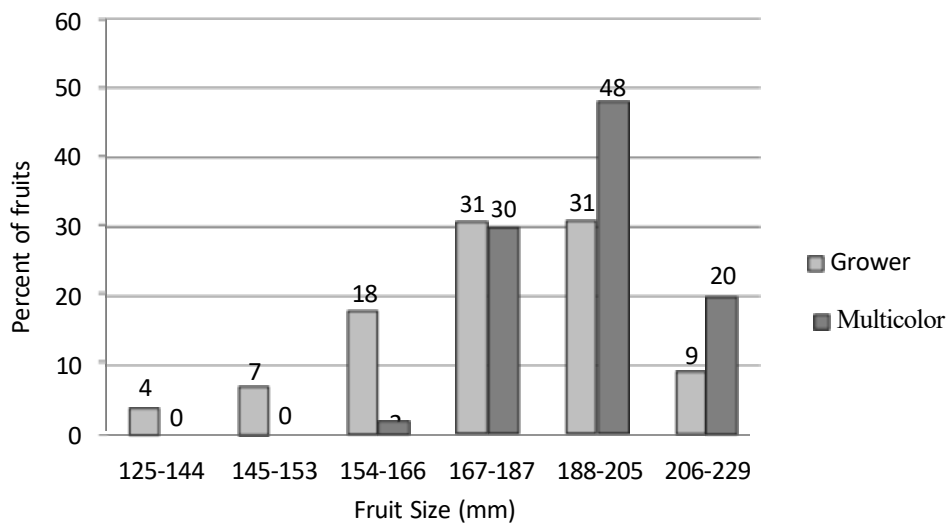


Figure 1. Effects of Multicolor Crop on fruit size distribution of White Lady peaches. Graneros, Chile.

### Conclusions

Application of Multicolor Crop significantly improved peach fruit mass by an average of 7.8% compared to the traditional program used by the grower and improved fruit quality, increasing fruit size and firmness.

Multicolor Crop application produced 17% more large fruits and 11% more extra-large fruits.