

REVIEW OF AGRICULTURAL RESEARCH ON AVOCADOS IN NATAL RESEARCH PRIORITIES AND NEEDS

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1. RESEARCH PRIORITIES

Research is primarily aimed at solving the problems that the Avocado industry is faced with. Priorities of the specific projects are determined by the extent of damage or loss caused by the problems which the project is addressing. In most of the cases benefits derived from the research are applicable to the whole of the South African avocado industry and in some cases only to Natal. In priority order the main needs are as follows.

1.1. Fruit quality:

Although the producers in Transvaal could virtually guarantee fruit arriving in Europe without external cold damage and without internal physiological disorders, this is not the case with Natal producers. The temperature regimes that are applicable for Transvaal could not be successfully adapted to ensure good quality for Natal fruit, as was clearly proved by problems experienced in the 1992 season. This problem affects the market and market perceptions even for Transvaal fruit which does arrive in a good condition. Good quality fruit is a prerequisite for a successful industry, bad quality could lead to failure even if production is on a high level. Although a lot of progress has been made the problem has not been successfully solved.

1.2. Hass fruit size:

The problem of a relatively high percentage of unmarketable small fruit of the cultivar Hass is well known to all producers in South Africa. In previous years this problem seemed to be less severe in Natal than in the Transvaal; however in the 1993 season it was clearly evident that this problem can be just as severe. Figure 1 illustrates the shift in fruit size between 1992 and 1993 regarding marketable sized fruits at Everdon Estate packhouse. Figure 2 shows how the factory grade fruit increased dramatically from 1991. This increase has been due to small fruit and no other factor. It can be seen that the total shift in fruit size can negatively influence the returns for fruit moving away from the ideal count structure and the tremendous waste generated by too small a fruit size.

1.3. Production potential:

World wide producers of agricultural products feel the pinch of a declining profit margin due to a rise in production costs and a lack of same for price received per unit. The only effective way to combat this is by increasing the production of marketable fruit per hectare. Natal feels this more so than the rest of the country as production obtained has been less than that achieved in Transvaal even though adequate and, in a lot of cases,

faster tree growth is obtained. A further problem is that of alternate bearing which has been far more marked in Natal by high producing years followed by very deep lows. This effect most probably has been initiated by adverse weather conditions such as severe hail damage and cold spells, it does however create a problem which needs to be addressed.

Several other problems and challenges face the grower but which are all of lesser importance and do not warrant more time and expense than the three major priorities already mentioned which in themselves could do with more inputs than are currently available.

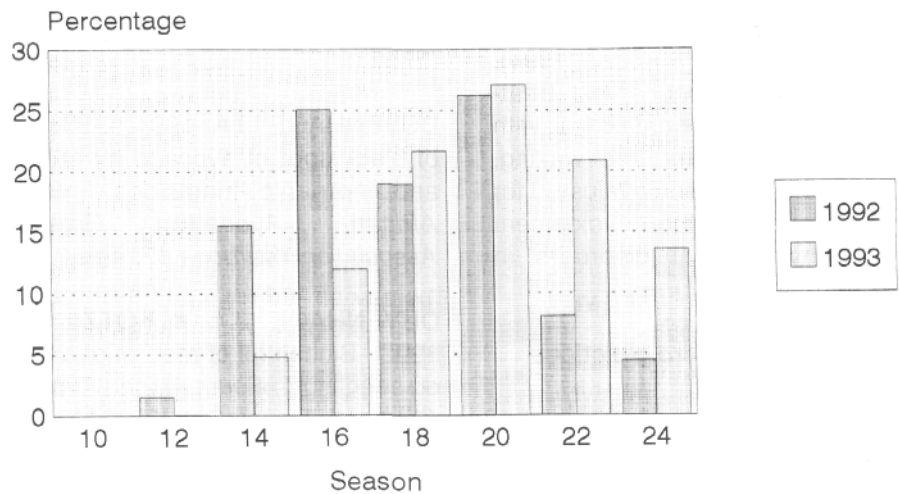


FIG 1: Hass fruit count sizes for 1992-1993 at Everdon Estates.

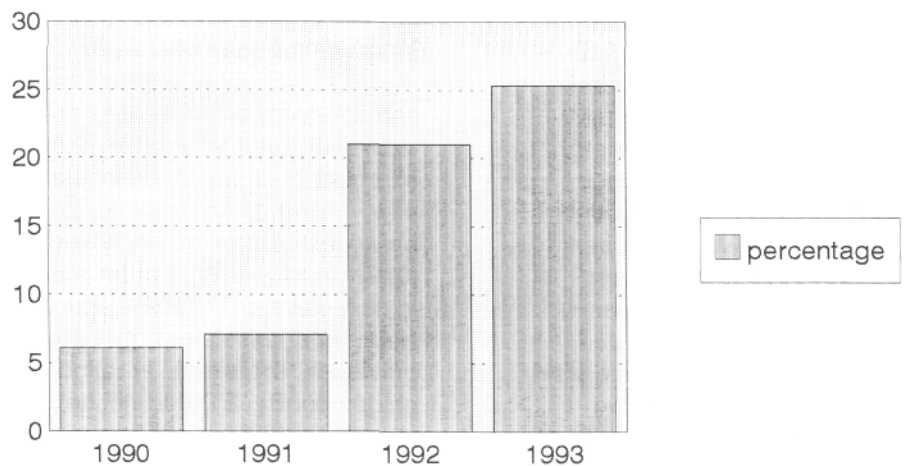


FIG 2: Percentage factory grade of Hass. Everdon Estates 1990-1993 season.