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The 'Gala' Apple

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'Gala,' one of a new breed of apple taking the world by storm, is a small to medium apple with an orange-red stripe over a cream-yellow background. The outstanding characteristics of 'Gala' fruit are its crisp, juicy flesh and its pleasant refreshing flavor.

'Gala' owes its existence to the vision of J. H. Kidd, a New Zealand fruitgrower who began making apple crosses in his Wairarapa orchard in the 1920s. Kidd had definite ideas about what he wanted of an apple, and he deplored the trend towards poor eating quality in new apple cultivars. In his view, crosses between high-yielding North American cultivars, with attractive, sweet fruit, and English cultivars with more highly flavored fruit, would produce the ideal apple.

By 1931 Kidd had selected and sold the propagation rights to 'Kidd's Orange,' a promising apple cultivar, which he had developed from a cross between 'Cox's Orange Pippin' and 'Delicious.' Encouraged by this success he continued to make crosses into the late 1930s producing several hundred seedlings of 'Kidd's Orange' x 'Golden Delicious.' Sadly Mr. Kidd died before he was able to complete selection of this new generation of apples and to see his vision become a reality. A group of selections from the 'Kidd's Orange' x 'Golden Delicious' cross was included in a larger variety evaluation trial in 1952 (Figure 1) by Dr. Don McKenzie of the DSIR, at the Havelock North Research Orchard (1). One of these, Kidd's D8, proved to be outstanding and in 1962 was named 'Gala.' McKenzie was sure that 'Gala' would be an excellent parent and he used it in his own breeding program (2).

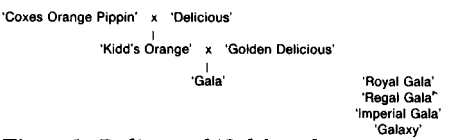

Figure 1. Pedigree of 'Gala' apple.

Commercial planting of 'Gala' began in New Zealand in 1965 and after the initial period of debate it was not long before the industry recognized the potential of this new cultivar and started planting it in quantity.

'Gala' has proved to be highly prone to color mutations and many sports of it have been discovered. The discovery of the red striped sport 'Royal Gala' by another New Zealand fruitgrower, Bill ten Hove, on his orchard at Matamata, was a major factor in the further development of 'Gala.' 'Royal Gala' appealed to a wider range of consumer and, from the growers' point of view, it was easier to handle because it was not as susceptible to bruising as is 'Gala.' 'Royal Gala' has dominated plantings of 'Gala' since its release in 1973.

Two other notable New Zealand sports are 'Imperial Gala,' very similar to 'Regal Gala.' 'Imperial Gala' is very similar to 'Royal Gala' and was released by David Mitchell of Hastings in 1978. 'Regal Gala,' a block red 'Gala' type, was released by the Fulford brothers of Hastings in 1980. 'Galaxy' is a new sport recently patented by Ken Kiddle, also of Hastings. It has a dark red stripe on a red background color pattern.

'Gala' strains have been heavily planted in New Zealand and are projected to exceed production of 'Red Delicious' 1994. 'Gala' is also being extensively planted in many other

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countries. Brazil was one of the first countries outside New Zealand to plant 'Gala' and has been exporting fruit to Europe since 1989. In France, where 'Royal Gala' is being substituted for 'Red Delicious' in generic apple advertising, significant and expanding production is taking place. More recently, considerable interest has developed in 'Gala' in the Pacific Northwest (USA).

'Gala' and its sports have confounded the experts by their rise in popularity. Although few would dispute its eating quality and attractiveness, most believed 'Gala' fruit would be too small to appeal to the consumers, and the trees too difficult to manage in the orchard. It seems however, that Kidd's theory that eating quality is the most important marketing characteristic an apple can possess has been proved correct by 'Gala.' Unfortunately this new cultivar is being drawn into the same cycle that caused the demise of 'Delicious.' The quest for redder selections by nurseries, anxious for something that will provide them with a competitive edge, is underway without any consideration being given to eating quality. The lesson we must learn is that the people buy apples to eat, not to look at, and they cannot be fooled forever.

References

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Frost Tolerance of Some Peach and Japanese Plum Cultivars

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Abstract

A freeze with temperatures of about -3C (26.6F) during bloom provided an opportunity to assess frost tolerance of 17 peach and nectarine cultivars (*Prunus persica* (L.) Batsch), and 8 Japanese plum cultivars (interspecific hybrids of *P. salicina*). Ovary survival of recently opened flowers varied significantly among peach cultivars, with 'Junegold' and 'Coronet' among the most tolerant, and 'Loring' and 'Fantasia' among the least tolerant. 'Bruce' and 'Santa Rosa' were by far the hardiest, and 'Ozark Premier' among the least tolerant of the plums, which were all in the post-bloom stage of development during the freeze.

Cropping following frost differs widely among peach cultivars. Lamb and Way (2) found differences in freeze survival of peach flower buds ranging from near 0% up to 70%. Scott and Cullinan (4) grouped cultivars into hardy and tender classes on the basis of yield following frost. Cultivars included in their hardy classification, such as 'Eclipse,' 'Cumberland,' and 'Greensboro,' had high numbers of flowers per tree, consequently, they produced a fair crop from a small fraction of uninjured flowers even though a high percentage of blossoms were killed. This characteristic is also exemplified in the recently introduced frost-tolerant 'Texstar' and 'TAMU Denman' peach cultivars (1, 5).

Variation among cultivars in frost tolerance as determined by cropping after a freeze may be accounted for by differences in date of bloom, and

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