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## The Cannon Hall Muscat grape

by

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### Die Rebensorte Cannon Hall Muscat

**Zusammenfassung.** — Die Tafeltraube Canon Hall Muscat, die in Westaustralien zum Export angebaut wird, gleicht der ursprünglichen Cannon-Hall-Muscat-Rebe, da die erstgenannte eindeutig den alten Beschreibungen und dem heutigen Aussehen der letzteren entspricht. Canon Hall Muscat ist diploid, und deshalb sollte dieser Name nicht für tetraploide Mutanten von Muscat of Alexandria gebraucht werden.

The original description of the Cannon Hall Muscat grape appears to be that of LINDLEY (1835). OLMO (1937) suggested that this description agreed with the tetraploid sports sometimes found on Muscat of Alexandria (syn. Muscat Gordo Blanco) vines, and since his publication there has been a tendency to name such sports Muscat Cannon Hall even though they have no connection with the original vine. Thus, the description by GALET (1964) appears to be based on such a sport and he indicates that the name has been similarly applied in Japan and Belgium.

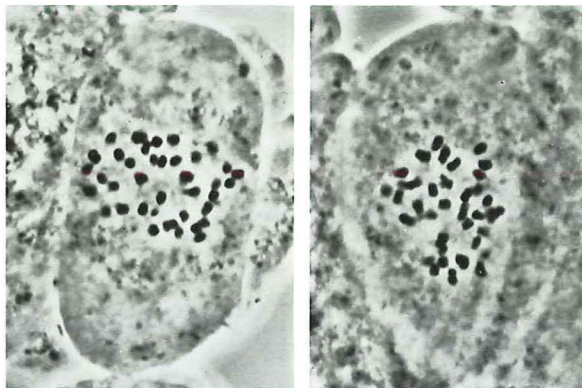


Fig. 1: Metaphase plates from squashes of Canon Hall Muscat root tips ( $2n = 38$ ). Phase contrast microscopy after pretreatment in 0.003 M 8-hydroxyquinoline sulphate, fixation in ethanol-acetic acid (3 : 1), and Feulgen staining.  $\times 1,400$ .

Metaphaseplatten aus Quetschpräparaten von Wurzelspitzen der Sorte Cannon Hall Muscat ( $2n = 38$ ); Phasenkontrast. Vorbehandlung in 0,003 M 8-Hydroxychinolinsulfat, Fixierung in Äthanol-Eisessig (3:1), Feulgenfärbung.  $\times 1.400$ .

Tetraploid sports of grapes have notably loose and straggly bunches with very thick peduncles. OLMO quotes from the original description (LINDLEY 1835) that Muscat Cannon Hall has poorly formed bunches, apparently taking this to mean that they set poorly, and he may have concluded from a mention of thick petioles

that the peduncles were also thick. However, the original description makes no mention of thick peduncles. It states that "one of the peculiarities of the variety is that, although the berries in setting are so far apart that it would seem as if the bunch would be very imperfect when ripe, yet they finally become so large that a subsequent thinning is absolutely necessary". The illustration accompanying the description shows a very well filled bunch which does not have an unusually thick peduncle. HOGG (1884) in describing Canon Hall Muscat also refers to the variety as having better set than Muscat of Alexandria. The description of Muscat Cannon Hall in VIALA and VERMOREL (1902) by E. and R. SALOMON refers to the variety as a seedling of Muscat of Alexandria and the illustration more closely resembles the original illustration (LINDLEY 1835) than a tetraploid Muscat of Alexandria.

A variety called Canon Hall Muscat has been grown as table grape in Western Australia for more than 50 years and is exported under that name (BETTENAY n.d.). Its origin is obscure but as a number of other English hot house varieties are also present in Western Australia, it has at least the possibility of descent from the original vine. The same variety under the same name has also been present in Queensland for many years although not grown commercially; it is not known whether this represents an independent introduction into Australia. The appearance of the Australian Canon Hall Muscat does not suggest tetraploidy, and chromosome counts on root tip preparations agree with the diploid number of 38 (Fig. 1). SAURER and ANTCLIFF (1969) have already pointed out that a 4—2 chimaera and 4—4 fully tetraploid sport of Muscat Gordo Blanco found in the Red Cliffs area, Vic., Australia, are quite distinct from Canon Hall Muscat and they certainly do not show the same very close resemblance to the original illustration of 1832 (LINDLEY 1835).

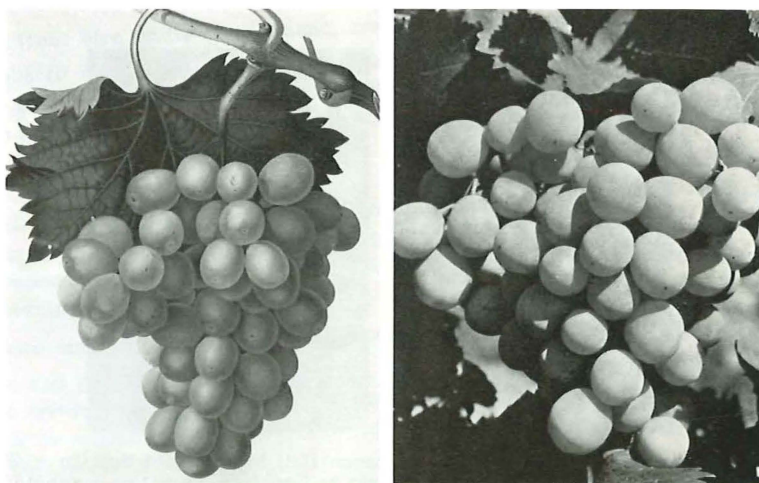


Fig. 2: Black and white reproduction of colour illustrations from LINDLEY (1835) left; and BETTENAY (n. d.) right.

Schwarzweißwiedergabe farbiger Abbildungen aus LINDLEY (1835), links, und BETTENAY (ohne Erscheinungsjahr), rechts.

Fig. 2 is a black and white reproduction of the colour plates from LINDLEY (1835) and BETTENAY (n.d.). The general shape and formation of the bunches, the shape of the berries and the brown markings at the stylar ends of the berries are in complete agreement.

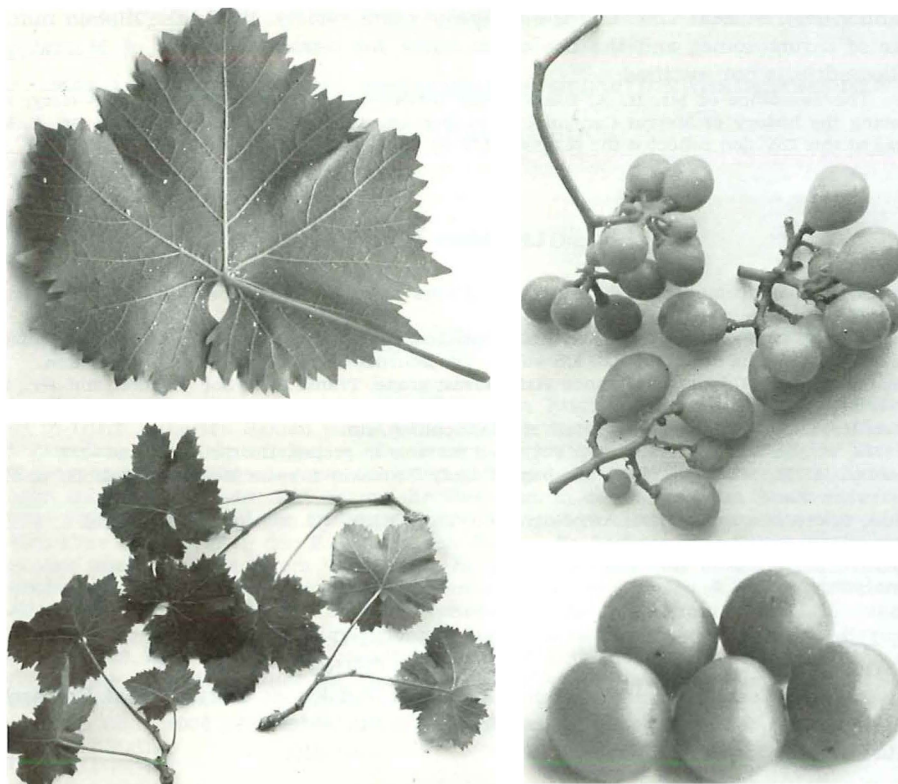


Fig. 3: Foliage and fruit from the original vine of Cannon Hall near Barnsley, Yorkshire.

Blätter und Früchte der Originalrebe von Cannon Hall bei Barnsley, Yorkshire.

LINDLEY was not aware of the exact origin of the variety when he wrote his description. It was in fact raised at Cannon Hall, the home of the STANHOPE family near Barnsley in Yorkshire, from seed brought from Greece in 1813 by JOHN STANHOPE (STIRLING 1913). Cannon Hall was sold to the Barnsley Corporation in 1954 and is now a museum. The original vine is still maintained because of its historic interest, being now more than 160 years old. In August 1975 a sample of leaves and fruit from the vine was imported to Australia for examination. The general appearance of the material did not suggest tetraploidy and although the fruit was not ripe, the brown markings on the stylar ends of the berries were present (Fig. 3).

There seems to be no reason to doubt the origin of the Cannon Hall Muscat vine given by the STANHOPE family, and no justification for using its name to refer to tetraploid sports of Muscat of Alexandria having no connection with the original vine. Apart from the mis-spelling of Cannon, the variety grown in Western Australia appears to be correctly named.

### Summary

The Canon Hall Muscat table grape grown for export in Western Australia is consistent with the early descriptions and the present appearance of the original

Cannon Hall Muscat vine, and is clearly the same variety. It has the diploid number of chromosomes and the use of its name for tetraploid sports of Muscat of Alexandria is not justified.

The assistance of Mr. H. A. BAKER, Fruit Officer of the Royal Horticulture Society, in tracing the history of Muscat Cannon Hall in England, is gratefully acknowledged. Dr. A. F. BIRD of this Division collected the leaves and fruit from the original vine.

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