'Earlibush Crenshaw' Melon

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'Earlibush Crenshaw' is an early, short-internode, andromonoecious, orange-fleshed muskmelon (*Cucumis melo* L.) with a smooth, golden-yellow, unnetted skin.

Origin

'Earlibush Crenshaw' originated as a cross between PI 435992 (the Chinese hami gua melon) and 'U.C. Crenshaw Bush' (Zink, 1980). Since the latter release matured late, lacked good fruit quality, and suffered severely from solar injury (SI) in Kansas, fur-

ther improvement was necessary. The reportedly high fruit quality of the Chinese hami gua melon offered the opportunity to develop an improved bush crenshaw (Amer. Soc. for Hort. Sci., 1980). Field selection through F₃ did not improve earliness or freedom from scald, so the F₄ was crossed to Burpee's F₁ 'Early Hybrid Crenshaw'. Rig-

orous field selection from this cross ("F₁") through F₇ resulted in 'Earlibush Crenshaw'.

Description

'Earlibush Crenshaw' is readily distinguished from other muskmelons. Besides a compact growth habit due to the *si-1* gene (Fig. 1; Paris et al., 1984), this cultivar has fruits with a light-green skin when immature (145B; Royal Horticultural Soc., 1966), derived from the 'Early Hybrid Crenshaw' parent, which carries the recessive gene for this trait in heterozygous condition. The light-green skin was incorporated into 'Earlibush Crenshaw' to prevent SI of the fruit. SI is often a problem with other crenshaw cultivars because they all have dark-green skin when immature (RHS 137B in 'Early Hybrid Crenshaw'). In the climate of the Great Plains,

Table 1. Performance of 'Earlibush Crenshaw' compared with short- and normal-internode netted muskmelon cultivars.¹

Cultivar	Internode type	Yield (t·ha ⁻¹)		Mean fruit wt (kg)	SSC ² (%)
		Early (to 2 Aug.)	Total (to 23 Aug.)		
Early Dawn F ₁	Normal	26.2 a ³	73.2 a	2.32 a	8.7
Sweet 'n Early F ₁	Normal	25.6 a	63.4 a	0.92 c	12.6
Earlibush Crenshaw	Short	25.0 a	48.7 b	1.61 b	12.3
Musketeer	Short	11.3 b	31.0 c	1.41 b	9.8
Honeybush	Short	7.4 b	23.1 c	1.50 b	10.4

¹Data are means over 2 years (1990, 1991) and three replications each year.

²Soluble solids concentration.

³Mean separation within columns by Duncan's multiple range test, *P* = 0.05.

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Fig. 1. Mature plant of 'Earlibush Crenshaw' melon. Scale units = 5 cm.

every fruit of the parental cultivar U.C. Crenshaw Bush develops SI. While this is most likely due to the dark-green pigmentation of immature fruit of this cultivar, the reduced foliage cover of its fruit also contributes to the problem. SI on 'Earlibush Crenshaw' was negligible. The ripe fruit of 'Earlibush Crenshaw' have a smooth skin and are an attractive, uniformly golden yellow (RHS 7A), which readily distinguish this cultivar from standard crenshaw melons. The pronounced change of skin color from light green to golden yellow makes determination of stage of maturity simple and accurate and is the main reason for incorporating yellow pigmentation of mature skin.

Fruit shape and maturity of 'Earlibush Crenshaw' are also not typical of crenshaws, which usually have oval fruit, slightly pointed at the blossom end. 'Earlibush Crenshaw' has nearly cylindrical fruit, flattened at both

ends, and with a prominent scar at the blossom end. This cultivar matures in ≈ 70 days from transplanting, ≈ 2 weeks earlier in maturity than 'Early Hybrid Crenshaw', the earliest crenshaw cultivar commercially available, based on comparison in replicated trials in 1989 (data not shown).

In fruit shape and skin color 'Earlibush Crenshaw' resembles some of the casaba melons, particularly 'Jaune des Canary'. However, 'Earlibush Crenshaw' fruits have a light-orange flesh (RHS 24C) with, in my judgment, an excellent, sweet flavor and a pronounced, pleasant fragrance; slip partially when fully ripe; and, like other crenshaws, have a keeping quality similar to netted muskmelon, rather than the long-storing casabas. Because of these features, 'Earlibush Crenshaw' is better classified as a crenshaw, despite its intermediate status.

The problems of late and inadequate fruit

set, which have been observed on *si-1* breeding lines, have been overcome by strong selection for increased early and total production of perfect flowers and for increased plant vigor. The effects of this pressure are evident in the yield data for 'Earlibush Crenshaw' in comparison with other early vining or bush-netted muskmelon cultivars (Table 1). All plants were spaced 0.46 m apart in rows 1.8 m apart in a randomized complete-block design with three replications in each of 1990 and 1991. At this spacing, plants of 'Earlibush Crenshaw' produced an average of about two fruits each, but at wider spacings yields of four to six fruit per plant were common. In both years, transplants were set out from 21-23 May and harvesting commenced on 16 July. 'Earlibush Crenshaw' has a uniformly early crown set, and a substantial portion of its fruit ripens in the first week of harvest; thus, plants can be removed then for subsequent cropping if desired.

Plants are ≈ 1 m in diameter and are larger, with more branching, than other cultivars that have been released with the *si-1* gene. Fruit weight was 0.9 to 2.5 kg, and mean size is 20.9 cm long $\times$ 13.9 cm in diameter, with a mean flesh thickness of 4.0 cm. The flesh is moderately crisp, and the soluble solids concentration ranged from 11.5% to 14.0%.

Availability

'Earlibush Crenshaw' was released on an exclusive basis to Johnny's Selected Seeds, Albion, Maine. Small samples of seed are available from C.D.C.

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