

‘Vialfas’, a new extra-late blooming almond cultivar

Rafel Socias i Company, José M. Alonso, Ossama Kodad and José M. Ansón

Unidad de Hortofruticultura

Centro de Investigación y Tecnología Agroalimentaria de Aragón (CITA), Av. Montañana 930, 50059 Zaragoza

CENTRO DE INVESTIGACIÓN Y TECNOLOGÍA AGROALIMENTARIA DE ARAGÓN

The aim of the almond breeding programme of the CITA of Aragón is the release of new almond cultivars with good horticultural behaviour, self-compatible, late-blooming and good kernel quality. After previous releases, ‘Vialfas’ is a new cultivar (selection I-3-27, clone 546) fulfilling most of these objectives. It was obtained from the cross between ‘Felisia’, a self-compatible cultivar obtained in the same breeding programme, late-blooming, but with small kernels, and ‘Bertina’, a local self-incompatible selection, late-blooming and large-sized kernels.

Blooming time of ‘Vialfas’ is very late, as an average 17 days after ‘Guara’, 10 after ‘Felisia’ and 3 before ‘Mardía’ (Fig. 1), with high chilling and heat requirements, similar to those of ‘Mardía’ for chilling but slightly lower for heat requirements. These differences could explain their different blooming dates. Flowers are of average size, white, with peristigmatic pistil. Bloom density is high and consistent. Self-compatible (genotype $S_p S_{II}$), with a high level of autogamy, giving rise to high fruit set. It is highly tolerant to frosts due to its late-blooming time.

The nut is of average size (4.7 g), as well as the kernel (1.2 g), with a hard shell and a shelling percentage of 25% (Fig. 2). In relation to kernel quality and composition, the contents of protein (18.84% of dry weight), oil (56.72% of dry weight), tocopherols (251.8 mg of total tocopherols/kg of oil) and phytosterols (2577 mg of total phytosterols/kg of oil) are average for almond, but the percentage of oleic acid in the oil is very high (78% of total oil, one of the highest ever measured in almond). Harvesting time is early, about a week after ‘Guara’.

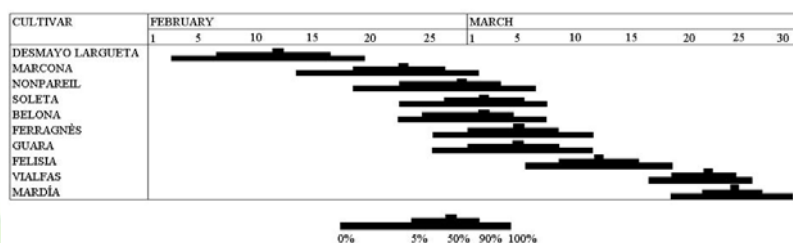


Fig. 1. Blooming time of ‘Vialfas’ as compared to other cultivars (average of 7 years). The percentages refer to the amount of open flowers



Fig. 2. Nuts and kernels of ‘Vialfas’



Fig. 3. Tree of ‘Vialfas’ in full production

Tree habit is slightly erect, although the crop weight slightly bends the branches (Fig. 3). Leaves show good tolerance to fungal diseases. Productivity in CITA trials and in experimental orchards in Caspe and Aniñón is very high.

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