

'ROBERT LIVERMORE': A NEW WALNUT CULTIVAR WITH A RED SEED COAT

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A new walnut cultivar distinguished by a red seed coat (testa or pellicle) is being released by the University of California. The cultivar is named in honor of Robert Livermore who was a supporter of the Walnut Improvement Program for many years. Apart from the red-colored seed coat the cultivar is typical of many other walnut cultivars. The origin, description and pedigree follow:

ORIGIN

The 'Robert Livermore' walnut cultivar is derived from a controlled pollination between 'Howard', a University of California cultivar released in 1978 and a germplasm accession obtained as scionwood and identified as RA 1088 from the walnut collection of E. Germain (Institut National de la Recherche Agronomique, Station de Recherches d'Arboriculture Fruitiere, Bordeaux, France). RA1088, described as "*Juglans purpurea* a cerneau rouge" on the introduction papers, has a reddish-brown seed coat considerably darker than 'Robert Livermore' and a typical light cream-colored kernel meat. Krussman describes a *J. regia* variety 'Purpurea' as having dull red leaves and another variety 'Rubra' as having a red nut meat and a blood-red epidermis. Neither the parent nor the offspring of this introduction fit these descriptions.

DESCRIPTION

The cross, made in 1991, resulted in 14 surviving progeny of which 6 had the red testa, 6 had a typical light tan seed coat and 2 have not yielded yet. The Robert Livermore cultivar (UC91-75-15) was selected from among the red ones because it is relatively precocious (first yield in 1995, 4th leaf), and about 90% of the lateral buds are fruitful. Estimated yield is good but not outstanding. 'Livermore' leafs out and blooms near 'Chandler' time and is ready for harvest about one week earlier. These dates may shift because the tree is still young and we have evaluated it in only one location (Davis, CA) for four years.

The nut has a strong shell and good seal. The shell is well-filled and the kernel is quite easy to remove. The kernel (7.1g) makes up 47.9% of the total nut weight (14.8 g). These values are averages of four years of data collection on ten nut samples and are fairly typical of commercial walnuts. The seed coat of 'Livermore' is a deep red-purple (41-42 on the Munsell scale).

PEDIGREE OF WALNUT CULTIVAR ROBERT LIVERMORE

