

FRUIT QUALITY IN ALMOND: PHYSICAL ASPECTS FOR BREEDING STRATEGIES

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Almond (*Prunus amygdalus* Batsch) kernel composition is a basic aspect for almond quality evaluation, but some physical traits of the nut and the kernel must also be considered in a breeding programme. Although the physical traits do not affect the organoleptic characteristics of the almond kernel, they are very important for the processing industry, and must be taken into account in the ensemble of the requirements for any cultivar, together with the production and consumer sectors. Both the shell and the kernel offer physical traits to be taken into account. Shell traits include shell hardness, affecting nut cracking and shell sealing, thus related to insect and fungal contamination, bird consumption and kernel cracking, as well as the presence of double layers in the shell, a problem for cracking performance. Kernel traits include size, shape, seed coat thickness and colour, double kernels, and kernel aspect. All these parameters are more or less heritable and must be considered in the design of crosses and in the evaluation during a breeding programme.