

IDENTIFICATION AND DESCRIPTION OF THE PHENOLOGICAL STAGES OF AVOCADO (*PERSEA AMERICANA* MILL.).

A-122

C. Cabezas¹, J.J. Hueso² y J. Cuevas¹

¹ Dept. Producción Vegetal. Universidad de Almería. 04120 Almería. España. Correo electrónico: jcuevas@ual.es

² Estación Experimental de Cajamar 'Las Palmerillas', Autovía del Mediterráneo, Km 419. El Ejido. 04710 Almería. España. Correo electrónico: jhueso@larural.es

Avocado is a self-compatible species that possesses hermaphrodite complete flowers. However, self-fertilization although not completely avoided is difficult because the female and male organs of the flowers do not mature simultaneously. In avocado, female organs mature before stamens dehisce, a condition termed protogyny. Avocado cultivars are classified according to the sequence and pattern of their flower cycle either as belonging to type A or type B. Type A and type B floral cycles complement. To optimize pollination, interplanting complementary cultivars with matching bloom date is commonly recommended. With the aim of facilitate the dynamic of flowering of suitable pollinizers and the course of their dichogamous flower cycle, we have described avocado phenological stages so far incomplete. The proposed model is based on observations carried out on 'Hass' growing in Almería Coast and it includes 10 stages from dormant bud to enlarged fruit. First stage describes avocado bud in dormant state, while the second illustrates morphological changes associated to rest completion and initial bud growth. Next four phenostages cover changes during inflorescence development including racemes formation and floral bud and tepals appearance. The stage of flowering pinpoints avocado dichogamous flower cycle. It includes ten substages: three of them describe the female phase, next, closing of the tepals; five substages are needed to fully describe the course of the male phase. Last flowering substage characterizes definitive closing of the flower. Tepals wilting stage explains the transition from flower to fruit. Last two phenostages describe initial fruit setting and the growth of the young fruit. Clear identification of phenological stages have been proved useful for characterizing flowering sequence of the main avocado cultivars and for detecting alterations in the pattern of the dichogamous cycle of 'Hass' and its potential pollinizers.