

Manual Cross-Pollination, Fruit Set and Development of Pear Fruits

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The lack of rootstocks compatible to pear in Brazil requires the application of classic genetic techniques. Therefore, for obtaining and selecting of suitable material the seeking for genetic segregation must be continuous, being used as alternative scion cultivars. The work aimed to evaluate fruit set, seeds number, fruit flesh and fruit diameter regarding crosses between pear cultivars. The trial was carried out from September 2008 to February 2009 in a commercial orchard in the city of Vacaria/RS, Brazil. For pollination process, it was used sample of pollens extracted from flowers at pre-flowering stage in the same orchard. The cultivars used were Packham's Triumph and Clapps Favorite. The crossings were defined as: T1 - open pollination; T2 - autopolination of Packham's Triumph and T3 - Packham's Triumph × Clapps Favorite. The pollinations were manually done in flowers at pre-flowering stage, which were opened, emasculated and then pollinated. Each pollinated flower was isolated with a fine nylon bag. Open pollination and cross pollination between Packham's Triumph ↔ Clapps Favorite provided higher fruit set (18 and 16%, respectively). Fruit flesh and diameter did not differ among treatments. Open pollination provided fruits with higher number of seeds, probably due to the presence of bees in the orchard. The lower number of seed observed in the others crossings could be due to parthenocarpy.