

THE PERCENTAGE AND PERSISTENCE OF POLYEMBRYONY IN CERTAIN CITRUS FRUITS

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ABSTRACT

Previous workers have reported polyembryony in a number of fern and seed plants. Polyembryony in citrus fruits was studied by Strasburger (1878), Webber (1900), Osawa (1912), Ensign (1919), and Frost (1926). In this investigation polyembryony was studied in four species, namely: *Citrus senensis*, *C. nobilis delicosa*, *C. grandis*, and *C. limonia*. One hundred seeds of each species were germinated to determine the number in which supernumerary embryos were initiated, and one hundred seeds were planted to determine the number in which polyembryony persisted after the seedlings were well established in soil. The species which showed the highest percentage polyembryony was *C. senensis* in which there was 92 per cent; *C. nobilis delicosa* showed 84 per cent; *C. grandis*, 69 per cent; and *C. limonia*, 29 per cent. Although *C. limonia* has the lowest percentage polyembryony, some of the seeds which showed it contained the highest number of embryos. (One lemon seed contained seven supernumerary embryos.) While the number of seedlings which show persistent polyembryony is less than the number which initiate them in each species, the proportionate number is consistent with the number initiated. No seedling in any case was observed which showed more than one persistent supernumerary plant.