

POLLEN FORAGING BY HONEYBEES POLLINATING SUNFLOWER

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Two beehives were placed in the center of a sunflower crop when the flowering reached 15% to determine the pollen collecting behaviour of honey bee. During six days and every 60 minutes from 8 hs. until 21 hs. pollen collected by bees were taken. They were dried out and weighed to determine total dry weight (TDW), then the pollen pellets were clasified by colours to get the macroscopic composition of the sample (MA); and by microscopic analysis, the microscopic composition (MI). The analysis of reproducibility of microscopic counts to determine the reliability of the information obtained was carried out. The curve of TDW fixed by a fourth degree polinomial regresion indicated that the major activity was in the first morning hours, with a peak between 10 hs. to 11 hs., and another lower peak in the last hours of the day. During the morning a major dispersion of data was observed, coincident with the major temperature and relative humidity variations. Sunflower pollen collection was centered at the beginning of total pollen collection. The macroscopic analysis overestimated the collection of sunflower pollen, but a significant correlation ($p < 0.05$) was detected between both methods ($r = 0,61$). The reproducibility analysis of MI showed variability coefficients that fluctuated between 6 % eucalyptus and 50 % for sunflower.