

## SUNFLOWER ACHENE FILLING PERIOD: VARIATION AMONG YEARS AND CULTIVARS

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Among yield components, achene weight is the final to be established and depends on the rate and duration of the filling period. These last two parameters were observed for several cultivars tested during three years at the University of Rio Grande do Sul (30°S). Seeding was performed every year by the end of August. Supplemental irrigation and adequate soil fertilization were performed in order to avoid severe stress and guarantee good yields. The outer capitulum achenes were sampled from anthesis (50% of the disk flowers in anthesis) to maturity, which was defined as the moment when 95% of the maximum dry weight was achieved.

A linear increase in dry weight was observed during the first three weeks for all cultivars and all years. During this period, weight gain varied from 0,14 to 0,21 mg/100 achenes/day. Rates for the same cultivar differed among years. With few exceptions, the longer the duration the lower the filling rate.

Achene growth was completed between three and four weeks. The minimum period being 21 days and the maximum 40 days, with most of the cases ranging between 23 and 29 days. For the same cultivar this period was not constant among years.