

## **Monthly planting of corn in Hualien area<sup>1</sup>**

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### **summary**

In order to find out the most suitable date for planting of corn in Hualien area, this experiment was carried out in the period of time from July 1982 to June 1983 with a planting sequence in 15-day interval. The results showed that the rate of maturation of corn was determined largely by temperature and sunshine hour. A decrease of 1 °C was accompanied by an increase of 3.6 days with a coefficient of determination of 92% and a decrease of one sunshine hour was also accompanied by an increase of 6.3 days with a coefficient of 73.4% in the period of days to tasseling. A close positive correlation between harvest index and grain yield of corn showed that the HI could be an indicator for the yielding capacity of corn. Average daily temperature and sunshine hour during vegetative growth period explained about 60% of the variation in agronomic characteristics than those of reproductive growth. Correlation coefficients of grain yield and agronomic characteristics including yield components except for node no. of ear could explain about 60-80% of variation in grain yield. Negative correlation coefficients between days to tasseling and agronomic characteristics resulted from the poor performance of corn varieties in the winter crops and late planting in the fall crop when corn plants took much longer to mature. The grain yield of corn was high in summer and fall crops, but low in spring and winter crops due to environmental factors, such as heavy rainfall, serious disease and pest, strong seasonal wind, low temperature and low solar radiation that affected the growth of corn. Early planting seemed to give better vegetative growth as compared with that of the late ones and the same trends were found in grain yield irrespective to the spring or fall crops. The suitable planting date for obtaining high yield of corn in Hualien area was found from late June to middle August.

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<sup>2</sup>. Assistant. Division of Crop Improvement.