

(nitrogen). GA 153 is probably a low accumulator of Mg and therefore sensitive to a lack of this element in its tissues. The lower leaves only had .10% Mg. The normal amount is .20% or more.

The lower leaves of GA 153 also had only 1.77% N when they should have had 3.00%. The N deficiency is probably due to an inability of the plants to take up the applied N fertilizer.

The stocks should be of use in future genetic and fertility experiments.

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#### 4. Viability in long-stored seeds of maize.

Seeds of 200 entries of  $S_0 - S_3$  lines were produced in 1965. They were stored in filing cabinets under ordinary conditions of room temperature and humidity of the Southeast at Athens for seven years and then tested for viability in a germinator in 1972. A total of 21% of the entries germinated, ranging from 2 - 88% in germination. Resistance to Rhizopus sp. in the germinator was noted in 3.5% of all the entries, the range being from very resistant to moderately resistant.

The variation in viability and also resistance to Rhizopus appeared to be hereditary. Seedlings were transplanted to the field to obtain germplasm for future studies and breeding programs.

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#### 1. Seed viability of maize (*Zea mays* L.).\*

In the last issue of MGCNL 45:94-95 Dr. Walton C. Galinat has reported the oldest seed viability of sweet-corn "Chuspillo" from Bolivia,

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