

CONCLUSIONS

The numerous decreases, and the few significant increases in yield which resulted from the treatments throughout this series of experiments indicate that treatment with corrosive sublimate in the Hastings potato belt is unwarranted. Two well replicated trials in 1929 gave similar indications for hot formaldehyde.

No yield increases, and positive indications of definite injury in these experiments, accentuated by some losses suffered by commercial growers elsewhere within the state from the use of organic mercury compounds, emphasize the inadvisability of treating seed potatoes in Florida on a commercial scale with these newer compounds, until their safety and advantages have been demonstrated.

The addition of materials to the soil for the control of rhizoctonosis of potatoes in the Hastings potato belt, disastrous in the trials of one year, has not been investigated sufficiently to warrant conclusions.

SUMMARY

Grouping and tabulation of the average percentage losses over a 10-year period in yields of potatoes because of rhizoctonosis (*Corticium vagum* B. & C.) indicate that this disease is not necessarily most severe in the northern-most states, although the southern states suffer very little injury.

A summary of the most recent publications reveals that although great efforts have been put forth to improve seed treatment methods, either by decreasing the time of treatment, and increasing the temperature, or by the use of new materials, 27 states still adhere to the use of cold corrosive sublimate, 5 advocate the use of hot formaldehyde only, 4 consider these two materials equally efficient, only 2 definitely recommend the use of organic compounds, 3 suggest either the new compounds or the old standard formula, and 2 suggest the modification of the latter either by adding an acid or by increasing the temperature, while 4 have no recommendations to offer.

Seed potato treatment experiments in the Florida potato belt, conducted for over a half decade, indicate that such treatments on a commercial scale with either corrosive sublimate, hot formaldehyde, or organic mercury compounds are not justified.