A TREATMENT TO PRESERVE VALUABLE REPRESENTATIVE SAMPLES OF EAR CORN.¹

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One of the great difficulties encountered in Farm Crops teaching is to preserve representative specimens of grain against damage by the Angoumois grain moth and similar insect pests. It has been found very desirable to make rather extensive use of type samples or specimens for class study and exhibit purposes and anything that could be done to preserve such material would be of help in the crops teaching work. The Farm Crops Department of Iowa State College, after trying several methods, has found one which has proved very satisfactory for the preservation of samples of ear corn.

A transparent, rather glassy coating which protects against the angoumois grain moth, discourages mice, and helps to prevent the shelling of butt and tip kernels can be secured by dipping corn ears in pure white shellac. Not only does shellac protect and thereby greatly lengthen the life of a sample, but it actually improves the appearance of the corn.

From the exhibit standpoint the cost of coating with shellac is not excessive. The results of treating a number of ears with pure shellac indicate that the average cost per ear will be from 5 to 10 cents. The cost will vary considerably, the deep kernelled ears taking much more shellac than do those of the flinty, shallow kernelled type. In an effort to reduce the cost of treatment a solution of shellac and wood alcohol, half and half, was used. The coating obtained, while giving considerable protection, was found not to be heavy enough to keep out the grain moth.

In the fall of 1920 an effort was made by the college to obtain an extensive collection of corn varieties. Five ear samples of some 80

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