of storing fleshy plant material without loss from rotting, freezing, respiration, moulding, enzyme action, etc., and that it can be carried out at low pressures and temperatures, mainly by cheaper mechanical operations, as distinguished from ordinary methods of drying. This will result in a large saving of fuel costs and will also give a better dehydrated product because of the low temperature and rapid drying. In the manufacture of starch from sweet potatoes, these last considerations are important in preventing physical and chemical changes in the starch before it is extracted.

It is obvious that, due to the removal of soluble substances in the juice by this process, wide claims for the dehydration of vegetables for food use should not be made. There may of course be special instances where the loss of nutrients or flavor with the juice would not be undesirable. Concentrating the juice and recombining it with the dried material does not seem to be feasible because of the high fuel cost. It appears, at present, that the principal applications will be in those cases where the loss of juice is not vital, such as in the manufacture of starch from either sweet or Irish potatoes and other similar processes.

The simplicity and low cost of this method suggest that it may be carried out in small-scale plants located at the source of the raw product. The dehydrated material can then be shipped economically some distance for further manufacture. This seems an effectual means of conserving surplus crops, cull vegetables and other farm wastes. In this way the method should become of considerable economic importance.

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E. F. HOPKINS

LAUREL, MISS.

THE GROWTH AND CHEMICAL ACTION OF ACETOBACTER SUBOXYDANS UPON I-INOSITOL[1]

PREVIOUS communications from this laboratory[2, 3] have dealt with the preparation of sorbose and of dihydroxyacetone by the action of *Acetobacter suboxydans* upon sorbitol and glycerol, respectively. It seemed of special interest to test the action of the organism upon cyclic polyhydric alcohols, and i-inositol was the first compound of this type chosen for study. This compound is of biological interest not only because of its wide occurrence, but because Miller and co-workers[4, 5, 6] have shown the compound to be identical with Bios I. It was thought that if this compound could be biologically oxidized to ketone compounds, which might exist in reversible oxidation-reduction systems, some light might be thrown upon its rôle as Bios I. Moreover, this type of reaction would permit the preparation of cyclic polyhydric ketones not now available. The organism has been shown, in our laboratories, to oxidize the i-inositol to a compound which present results indicate to be a di-keto-i-inositol. Details of preparation and identification of the compound will be published later.

Some observations on the culturing of the organism on i-inositol are of special interest and are noted at this time. In preliminary experiments, a medium containing 3 per cent. of i-inositol and 0.5 per cent. yeast extract (Difco) was inoculated with a culture of *Acetobacter suboxydans* which had been grown on a sorbitol medium. Growth was good and the Schaffer Hartmann[7] titration showed the formation of reducing material. However, it was found that the organism could not be carried on the inositol-yeast extract medium beyond the third transfer. The addition of as little as 0.1 per cent. of sorbitol to the above medium permitted indefinite subculture and high conversion of the inositol into the oxidation product.

The factor involved in the above phenomena is not surbose but is some other fermentation product of the sorbitol. The material is present in the filtrate obtained by separation of the bacteria from the medium by filtration through a Berkefeld filter; it is stable when heated for 10 minutes at 100°, but shows some slight deterioration when stored for three weeks at 30°. The bacteria, washed free from the fermented sorbitol medium, were unable to oxidize the inositol unless the filtrate was added. Detailed studies are in progress to determine the nature of this factor and whether it will affect the oxidation of other materials by the organism.

JOHN W. DUNNING
ELLIS I. FULMER
JAMES F. GUYMON
L. A. UNDERKOFLER

THE EXCRETION OF PREGNANDIOL IN THE TOXEMIAS OF PREGNANCY

DETERMINATIONS have been carried out on the urine of pregnant women for sodium pregnandiol glucuronidate, an excretion product of progesterone, according

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