able to enter the intima, whereas the larger ones are rejected.

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Mango Grafting in Eight Weeks

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Mango is commercially propagated by inarching. Age of the seedlings to be inarched varies from 1½ to 2½ years, and the grafts are separated from the parent tree in about 3 months. Thus, it takes 2–3 years before a mango graft is ready for transplanting in the field. During this period, the nurseryman must take very good care of the seedlings; besides, copious watering of grafts, essential for good union, makes the method cumbersome and expensive. Further, such grafts, being on 2-year-old seedlings, have a relatively poor root system. They also do not transport well.

Inarching of mangoes on 4-week-old seedlings was, therefore, tried by the author in order to overcome the serious disadvantages mentioned. Mango stones planted in the the first week of July started germinating by the end of the month. About 30 days after germination, the seedlings attained a height of approximately 1 ft and a girth of ⅛ in.–¼ in. One hundred such seedlings were lifted from the seedbed along with stones and sprouting roots, and the soil clinging to the stones was removed. The stones were then covered with wet sphagnum moss about ½ in. in thickness, held in position by a thin string. The seedlings were taken to the parent tree and inarched with new shoots of equal thickness in early September (Fig. 1).

FIG. 1.

Complete union took place in about a month, and the grafts were detached from the mother plant by the end of September and potted. Eighty per cent success was obtained. Watering was completely withheld since the entire operation was completed in the rainy season, when the rain water absorbed by the moss furnished the required moisture. This method also obviated the necessity of lifting of stock with a ball of soil for food material, as this was supplied by the stones.

Temperature-dependent Characteristics of an Adenylpyrophosphatase Preparation from Potatoes[1]

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A need for a means of selectively hydrolyzing the acid-labile phosphate groups in ATP arose in our studies (*1*) on the turnover of labeled phosphate in the ATP present in preparations from animal tissues. Although crystalline myosin (*2*) and purified myokinase (*3*) proved useful, the time and effort involved in the preparation of these enzymes, together with the lack of stability of myosin, prompted a study of other preparations (*4*) that might be both stable and easily available. We report here on a preparation from potatoes which, in suitable dilution, possesses the desirable property that at temperatures above 7° C it catalyzes the hydrolysis of the 2 acid-labile phosphates in ATP, and at 7° or below it catalyzes the hydrolysis of only the terminal group. The preparation is quite stable and may be prepared in a period of 24 hr. One sample, saturated with toluene, maintained its activity over a period of a year. Between periods when aliquots were withdrawn for use in the analysis of ATP, the solution was stored at 2°–5°. The usefulness of our preparation in the large-scale conversion of ATP to ADP is being studied.

Kalckar (*5*) and, later, Krishnan (*6*) reported on an enzyme preparation from potatoes catalyzing the hydrolysis of the acid-labile phosphates in ATP. Kalckar (*5*) suggested that a single enzyme was involved. Meyerhof (*7*) proposed that the name apyrase be reserved for the dephosphorylating enzymes that do not distinguish between ATP and ADP. Our preparation differs sufficiently from those reported by Kalckar and Krishnan to suppose that we are dealing with a different enzyme or a mixture of enzymes.

[1] This investigation was supported by a research grant from the National Advisory Heart Council, National Institutes of Health, USPHS.