

afterward testing its capacity to grow and produce carbon dioxide. It was found that the leavening power could be virtually destroyed by the toxic substance in the perspiration, though under normal conditions the yeast retained its full strength. Certain bacteria were also killed by the same treatment.

Under the microscope the effect of this unknown poison could be watched, as it paralyzed and partly broke down the living protoplasmic substance in plant cells. It was noted that the poisonous action on plant protoplasm was stronger than it was on animal.

Extracts made directly from the sexual organs of pigs showed similar toxic action. Body fluids of female animals taken under the same circumstances as those prevailing in the human experiments were also poisonous, though the intensity differed. Female monkeys produced much toxic substance, rats an intermediate amount, and dogs hardly any.

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#### RUBBER COATED FRUITS SHIPPED FROM TROPICS

Dipping in rubber latex, already a familiar process in tire manufacture, promises to become an important process in the fruit trade, according to a report to the Pan-Pacific Union by Dr. P. J. S. Cramer, a Dutch botanist of Buitenzorg, Java.

Dr. Cramer has shipped fresh strawberries with rubber coats without loss of flavor or texture, though the trip lasted fourteen days. He has shipped latex-dipped ripe mangos, and the mangosteen, which is considered the most delicate and hard to ship of all tropical fruits, from Buitenzorg to Paris, where they arrived in perfect condition.

The success of the process depends on the formation of a thin, airtight film over the surface of the fruit. The exclusion of oxygen stops the physiological processes, and no changes take place until the rubber film is stripped off again. During his experiments, Dr. Cramer dipped one end of a green banana in latex and left the other end as it was. The uncoated part went on and ripened, while the coated end remained exactly as green as it was at the start. Similarly, ripe fruits when dipped simply remain ripe and do not go on to over-ripeness and deterioration.

Dr. Cramer's process may become the basis of very important developments in the handling of tropical produce. Refrigeration in the tropics is expensive, and some of the choicest fruits, like the mangosteen, cannot be shipped even when refrigerated. Rubber latex, on the other hand, is inexpensive and abundant throughout all the hot countries, and its use is expected to have the advantage of economy both in cost and in the utilization as shipping space of parts of cars and vessels now occupied by ice chambers and refrigerating machinery.

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Certain tropical hardwoods are so dense that they will not float in water when they are to be transported rafts of bamboo or lighter woods have to be built to carry the logs.

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