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Relative Costs of Home Made and Dehydrated Nutrient Agar

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The development of acid tolerance could not be clearly demonstrated. However, definite alkali tolerance was developed when the alfalfa organism was grown on alkaline medium. This tolerance remained constant for several months (as long as the culture was tested) indicating a permanent change in the organism. The original culture produced good nodule formation on alfalfa rootlets. After the development of alkali tolerance the culture showed an increased activity in nodule formation.

When the alfalfa organism was exposed to desiccated conditions very little change was observed in its morphology. However, culturally the organism gave a clear vigorous growth on mannitol medium and quite a vigorous growth on litmus milk and on potato medium. It particularly showed variance from the original culture in its resistance to dry conditions and in a much larger production of gum. The change produced in this modification is permanent. This dry resistant culture is able to tolerate gentian violet and alkali conditions even better than the resistant cultures. However, the culture now is less effective in nodule formation than before exposure to desiccated conditions.

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RELATIVE COSTS OF HOME MADE AND DEHYDRATED NUTRIENT AGAR

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Batches of 1, 4, and 7 liters of nutrient agar were prepared from the ingredients according to Standard Methods, and the costs compared with those of similar batches made from commercial dehydrated nutrient agar. The costs of ingredients, labor, and loss due to filtration, were the only items considered.

It was found uneconomical to prepare nutrient agar from its constituents in batches of less than 2.5 liters, with labor at 40c an hour (about \$80.00 per month). The higher the cost of labor, the larger the batch of agar that would have to be made to have costs compare favorably with the use of commercially dehydrated nutrient agar.

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