reported for the first time. Further studies on the exact role of these two bacteria in the digestive physiology of the pest is in progress.

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FACTOR ANALYSIS IN ONION
(ALIUM CEPA L.)

Several measurements are usually recorded in experiments involving crop plants. They can be broadly classified into morphological characters and yield components. The next step that is generally taken is to assess the treatmen differences for each of these characters independently. Doing so, we are tending to ignore the interrelationship between these characters and also the fact that each one of the measurements does not attempt to measure the yielding ability or the vigour of a similar phenomenon associated with plant growth.

For the above reasons, one of the methods employed is to find an index, for each of the phenomena concerned with the plant, using the measurements observed by us. This is done by the method of factor analysis. Results of such work have been reported recently.

Measurements recorded in an experiment on onion to assess its seed yield was used for the purpose of arriving at the factors. The characters considered were $X_1$-number of flowering stalks, $X_2$-height of flowering stalks, $X_3$-diameter of umbel, $X_4$-1000 seed weight, and $X_5$-total seed yield.

The centroid method of analysis as given by Lawley and Maxwell was used in arriving at the factors. The following two factors were obtained:

Factor I: $-3506 X_1 + 0.6142 X_2 + 0.4502 X_3 + 0.2683 X_4 + 0.8316 X_5$

Factor II: $-7698 X_1 + 0.2803 X_2 + 0.7166 X_3 + 0.4597 X_4 + 0.2725 X_5$

The first factor had a variance of 1.47 (29% of the total) and the second factor a variance of 1.45 (29% of the total).

Both the above mentioned factors give positive loading to all the characteristics observed, and hence they are indices of vigour only. While the first factor gives higher loading to the height of the flowering stalk and seed yield, the second factor gives more loading to the number of flowering stalks and the diameter of umbel. The first factor can thus be taken as indicative of the general vigour of the plant giving importance to both the plant size and its reproductive potential, while the second one can be taken as a measure of floriferousness of the plant. These two indices could be used in further comparison of treatments in onion data profitably when the vigour of the onion plant is to be compared.

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