GENERAL DISCUSSION
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Results of statistical analysis:

Pineapple is one of the plants which can be forced to flower early by the application of auxins. The discovery that auxins are the effective chemical agents for inducing early flowering was first reported from Hawaii in 1942 by Clark and Kerns.

Induction of early flowering with the auxin antagonists viz TIBA, 2,4-dichloroanisole was also reported by Zimmerman and Pitchcork (1942) and Bonner (1949). Treatments of plants with x-rays or removal of organs rich in endogenous auxin resulted in promotion of flowering. All these observations led to the thinking, any imposition of conditions that reduce endogenous auxin (IAA) content in plants will effectively induce early flowering. In pineapple, treatment with N.A.A.; 2,4-D, NOXA and acetylene caused greater number of flowers (Van overbeek 1946; Das 1964; Das and Boruah 1968).

In this experiment, the experimental results of N.A.A., suggest that the auxin N.A.A. in its concentration ranging from 5 to 100 ppm significantly evoked greater number of plants to flower compared to its counterpart untreated control. Results of the statistical analysis corroborates this finding, as the effect of N.A.A. was found to be highly significant.
Secondly, the earlyness in flower initiation by little over 13 days over the control due to the application of N.A.A. was an interesting effect.

This finding of acceleration in flowering is in full agreement with those of Clark and Kerns (1942), Van overbeak (1946), Das (1962); Das and Borush (1968). The effect of N.A.A. in inducing early flowering was also found to be statistically significant. In conclusion it may be stated that N.A.A. in addition to inducing greater number of treated plants to flower caused early flowering. For Pineapple therefore, high auxin level is of immense need in producing flowers. Moreover in the stem apex and leaf bases of this plant, the auxin content is fairly rich. High amount of diffusible or free auxin(I\(\text{IAA}\)) is present in the stem apex, but leaf bases contain acetaldehyde which is an auxin precursor usually derived from tryptophan after metabolic conversion by the mediation of I\(\text{IAA}\) enzyme system found to be present in this plant. It is clear, therefore, that Pineapple plants possesses an active seat of auxin metabolism.

The second experimental results which was conducted by the application of B-naphthoxy acetic acid suggest that, the auxin in its concentration ranging from 5-100 ppm significantly evoked greater number
of flowers compared to its untreated control. This was found to be statistically significant.

Next interesting effect of NOXA was the early flowering over the control. This earliness was found to be statistically significant. There was not any notable changes in the chemical constituents of leaves due to the application of this auxin. But a slight increase in sugar content was noticed.

From the results collected from the experiment with 2,4-D, it is evident that a kind of formative effect was exerted by this auxin on the leaves showing narrow constriction slightly above the base. There was also reduction in flower numbers due to the suppression of flowering in plants.

Statistical analysis showed a significant effect in depressing the number of flowers. The particular effect may be attributed to the toxic effect inducing metabolic imbalance concerned with flowering of this plant. Action of 2,4-D may not be directly linked with metabolism of endogenous auxin, IAA (Andus and Thresh, 1956).

This finding of delay in flowering is in full agreement with those reported by Das and Paruah (1968) although it is at variance with that of Van Overbeak (1946).
The action of Ascorbic acid in flowering behaviour of Pineapple was found to be satisfactory. In this case the flowering percentage increases with the increase of concentration.

The earliness in flower initiation due to the application of ascorbic acid was an interesting effect. A slight fluctuation in the chemical constituents of the leaves was also observed.

The experiments conducted with Gibberellic acid show that it can satisfactorily evoked greater number of plants to flower compared to its counterpart untreated control. This result was also found to be statistically significant.

This action of G.A. is at variance with that of Das and Beraiah (1963). On the basis of my own results it can be said that G.A. in addition to inducing greater number of treated plants to flower caused early flowering.

This finding need be cheque by conducting further experiments. The action of Indole propionic acid in the production of flowers was also studied and found to be significant in the production of flower compared to its control coupled with earliness in flower initiation by little over 9 days over
the control. All these data were statistically analysed and found to be significant.

But in the chemical constituents of the leaves there was not much difference between the treated and untreated samples.

From the results of the experiment with Methyl naphthalene acetic acid it is found that the general pattern of action of MNAA in flower formation was of a kind of deleterious effect. This inhibiting effect was not unexpected because of its antagonistic behaviour over the native auxin (IAA). Antiauxin nature of MNSA as reported by Audus and Das (1954) and Aberg (1952). This result was statistically analysed and was found to be not significant in flower formation.

An experiment conducted by Das and Baruah (1968) with an anti-auxin TIBA also caused the discouraging results in flower formation in pineapple.

The early flowering by calcium carbide was due to the effect of acetylene that was produced from the calcium carbide by a slow reaction with atmospheric moisture content.

This finding are in conformity with the earlier reports by Das and Baruah (1968), that flowering...
Pineapple can be induced by several compounds, including acetylene and ethylene.

The logical assumption is that it may alter the endogenous auxin level to threshold concentration which causes flowering in this plant.

The effect of IAA on flower formation is not satisfactory. The delaying effect of this auxin was observed. No variation was observed between the treated and untreated sample in regards to sugar, acid and nitrogen. In conclusion it may be said that IAA effect is not well marked.

All these facts lean heavily to the conclusion that NAA and NOXA have common metabolic pathways through which flowering of Pineapple is promoted by them and the results were also found to be highly significant statistically, both in early flowering and formation of greater number of flowers.