TRIIODOBENZOIC acid (TIBA) has been used to increase floral development of plants. Zimmerman and Hitchcock (9) reported that TIBA, when applied to tomato plants, would cause ordinary vegetative buds to produce flowers. They also noticed that more axillary growth was produced by plants treated with TIBA. Galston (4) studied the effects of TIBA on flowering in soybeans. He reported that vegetative plants were not induced to flower by TIBA, but photoinduced plants showed a ten-fold increase in the number or floral buds.

Whiting and Murray (8) found that, with applications of 0.1 to 1% TIBA, axillary structures in the Red Kidney bean definitely exceeded those of controls by the fifth day and that flowering of treated plants considerably preceded that of controls.

Fisher and Loomis (3) reported that foliar applications of nicotine sulfate to soybeans caused the production of abundant macroscopic flowers under noninductive photoperiod treatments. Nicotine sulfate also induced earlier flowering, at lower nodes, and more flowers per node. Foliar applications of TIBA gave similar results.

Fisher (2) found that removal of immature leaves was an effective way of hastening flowering, whereas removal of two or more mature leaves delayed flowering. The beginning of flowering was closely related to the ratio of mature to immature leaves. He reasoned that the antiauxin appeared to hinder auxin production by young leaves rather than to inhibit auxin effects in mature leaves.

Luckwill (6) indicated that auxins probably control fruit production.