creased to an average of 233 sec. However, in the animals that recovered, the final value varied between 136 and 140 sec. This prolonged coagulation time was probably one of the contributing factors in the skin hemorrhages seen in all irradiated animals. However, although we only estimated the total number of platelets in our differential counts, the decreased number of platelets found was probably a factor in the increased coagulation time and should be considered, as should the possibility of hyperheparinemia (*1*).

The normal control animals showed a progressive weight gain throughout the experiment, whereas the irradiated animals lost weight (up to 100 g/week) beginning on the fifth postirradiation day and continuing until the 16th day, after which time those that survived began gaining weight faster than the controls.

In 13 irradiated animals, autopsy showed varying degrees of intestinal damage, from rupture to complete dissolution of parts of the small intestine. Intestinal damage is a general finding after x irradiation (*7*) and was probably one of the reasons for the weight loss observed in the irradiated animals.

It is concluded that the guinea pig responds similarly to other animals subjected to x irradiation and that for many purposes is much more suitable for such studies than the mouse or rat. Dependable results can be obtained using the guinea pig because its size and general temperament are suitable for studies employing large numbers of animals. However, all hematological studies should be reported in both relative and absolute terms to avoid a misinterpretation of the results observed.

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## Persistence of 2,4-D in Plant Tissues


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The persistence of 2,4-D in plant tissues of seedlings produced from plants which exhibited 2,4-D injury has been reported by several writers. Pridham (*3*) found that, if bean plants were sprayed with 2,4-D while the pods were still green, seedlings from seeds from these pods developed malformations characteristic of those produced by 2,4-D. Brown, Holdeman, and Hagood (*1*) reported that no abnormalities were found in cotton seedlings from seed collected in Louisiana in cotton fields affected by 2,4-D. Dunlap (*2*) reported that abnormal root development and deformed leaves were produced by seed collected from cotton plants that exhibited 2,4-D symptoms the year before. No other reports, to the writers' knowledge, have been published that would indicate any persistence of 2,4-D in plant tissues from one growing season to the next other than in seeds.

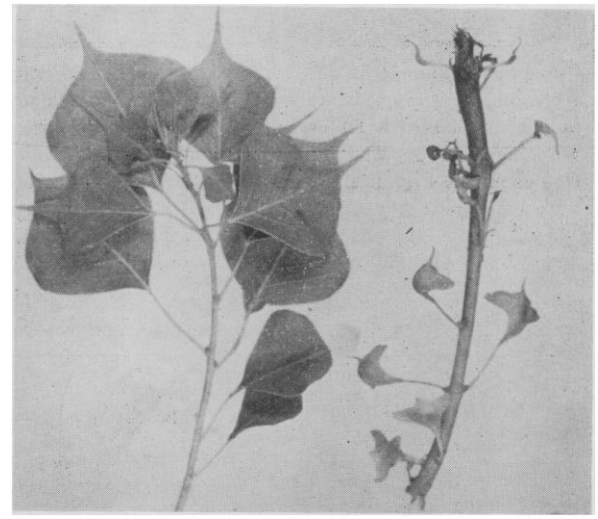

FIG. 1. On right, 2,4-D injury to shoot of *Stillingia sebifera.* Healthy shoot on left.

In the spring of 1949, trees of the Chinese Tallow tree, *Stillingia sebifera* Michx., growing in the vicinity of Beaumont, Texas, were observed to be producing shoots with symptoms characteristic of 2,4-D injury (Fig. 1). These trees had been accidentally injured with 2,4-D during the summer of 1948. Other trees of this variety were also observed that were purposely sprayed in 1948 in an attempt to kill them. Of 100 trees in this group that were examined, 14 were dead, and all of the rest showed characteristic symptoms of 2,4-D injury. No 2,4-D had been used in 1949, and the symptoms of injury appeared on the earliest growth. This indicates that the 2,4-D had persisted in the buds and other vegetative tissues of this plant from the time of injury in 1948. Some chinaberry trees, *Melia Azedarach* L., were also severely injured in the vicinity of Beaumont, Texas, in 1948, but no symptoms of 2,4-D injury were found on them in 1949, which indicates that 2,4-D does not persist in the vegetative tissues of this plant.

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