becomes a gamble with fate. With some varieties, Stayman Winesap, for example, a disastrous drop may, without warning, occur almost overnight. On the other hand, McIntosh, a notorious dropper in many fruit sections, may fall steadily for several weeks prior to harvest time.

It is well known that climate and weather influence fruit dropping and are therefore important factors determining the feasibility of growing certain varieties in a given region. It is conceivable that elimination of the danger of dropping, in addition to safeguarding those varieties which consistently show this characteristic, may also widen the growing range of certain others, which drop badly only in the more southern regions.

Most of the commercial so-called plant growth substances have the propensity, in varying degrees, of delaying the normal abscission of various plant organs. Among a number of these substances tested naphthalene acetic acid and naphthalene acetamide have been reported[1,2,3] as being particularly effective in delaying the abscission of flowers of the date and holly, in the latter case, resulting in parthenocarpy. The frequent observance of the effect of these compounds in delaying the abscission of floral structures, stems and also of petioles on treated cuttings led to the attempt to apply them in a practical way to the problem of apple fruit dropping by spraying the trees. The results to date have been more than gratifying.

Thus far, trees of seven varieties, including Yellow Transparent, Williams Early Red, Oldenburg, Early McIntosh, Wealthy and three new early varieties, as yet unnamed, have been sprayed with various concentrations of the growth substances and a record obtained of the percentage of the total crop dropping from the trees over a period of time in comparison with the drop from untreated trees. Naphthalene acetic acid and naphthalene acetamide applied just prior to fruit maturity have proved to be particularly effective with all the varieties thus far treated. In addition to these two substances, indole acetic and indole butyric acids have been used, although the indications are that these indole compounds are much less effective in preventing abscission than either of the two naphthalene compounds.[4]

In the first experiments much stronger concentrations were used than are now proving to be necessary. Williams Early Red, as an outstanding example, was sprayed with .001 percentage of naphthalene acetic acid on July 13. By July 25 the unsprayed control trees had dropped from 64.2 to 90.8 per cent. of their total crop on actual fruit count, whereas the sprayed trees had dropped only from 1.3 to 1.5 per cent. of their fruit. Concentrations of .00025 per cent. on other varieties have since been found to bring about very marked inhibition of dropping. The effectiveness of some of these compounds in such dilute concentrations would definitely recommend their usage as a practical orchard procedure. Their practicability becomes enhanced if the present indications, that they can be added to the regular spray schedule, are borne out by additional experiments.

It is anticipated that a detailed account of the experiments will be issued in the near future when the results are compiled on additional experiments, now underway, related to various practical phases of application. This brief report, it is hoped, may serve to call to the attention of other investigators the possibility of using these compounds to advantage in the numerous problems involving the abscission of various other fruits and plant organs.

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[1] *Bot. Gaz.*, 99: 184–195, 1937.
[2] *Ibid.*, 100: 868–871, 1939.
[3] F. E. Gardner and P. C. Marth, *Bot. Gaz.*, 101: No. 1, 1939.
[4] Acknowledgment is made to Franklin D. Jones, of the American Chemical Paint Company, Ambler, Pa., for supplying in generous quantities all the compounds used in this work.

"DISTINCTION" IN "SCIENCE"

ACCORDING to a news item in the *Herald-Tribune* for July 19, 1939, the Postmaster General, James A. Farley, has authorized the issuance of a special series of postage stamps in honor of Americans who have "achieved fame" in the arts and sciences. The list of scientists chosen for this honor is as follows: Luther Burbank, Dr. Crawford W. Long, Dr. Walter Reed, John James Audubon and Jane Addams.

The official news release of the Postoffice Department stated that the stamps are to honor "famous Americans who have achieved outstanding distinction in the arts and sciences." "Outstanding distinction" from what source? Without intending the least disparagement of the services rendered by the Postoffice "scientists," Heaven help us if this list of names is a true index of the public's understanding and evaluation of what science is and of scientific accomplishment in the United States.

One can not help wondering who the committee was, if any, that made the selection of "scientists." Certainly it could not have been referred to either the American Association for the Advancement of Science, or the National Academy of Sciences, which is the official adviser to the Government in such matters.

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BROOKLYN BOTANIC GARDEN,
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