

Alabama, through the kindness of Mr. Robert A. Love, yielded a race which behaved in the same way, and which evidently belongs to the *Æ. Tracyi* described by Bartlett.⁴ The plants, which were grown at the John Innes Horticultural Institution this year, numbering 173, were very uniform and agreed in general with Bartlett's description. They were very tall and stout, much more so than *Æ. grandiflora*, and several plants showed small buds at the end of September. Certain other facts in this connection are referred to in a paper now in press in the *Transactions* of the Linnean Society.

In growing scores of wild races belonging to the species *Æ. biennis*, *Æ. muricata*, *Æ. grandiflora*, *Æ. argillicola*, *Æ. Hookeri* and others from various parts of North America, in the climate of England during the past summer, I have been greatly impressed by the constancy and the peculiarity of each race as regards such physiological characters as the strength of the biennial habit, and the time of blooming. The differences in these respects are quite as marked and constant as any morphological characters can be, and in hybrids they are frequently intermediate. Evidently each race is closely adapted to the conditions of the growing season in its own native locality; and within certain limits it is possible to predict what the behavior of a race will be when one knows the latitude and climatic conditions from which it came. The elucidation of the origin of these racial climatic adaptations in *Ænothera* is a most interesting evolutionary problem.

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INHERITANCE OF THE RUSSET SKIN IN THE PEAR

THE russet skin occurs commonly in the pear and it is found in amounts varying from 0 per cent. to 100 per cent. In Ragan's "Nomenclature of the Pear"¹ are described

⁴Bartlett, H. H., "Systematic Studies on *Ænothera*. I. *Ænothera Tracyi* sp. nov.," *Rhodora*, 13: 209-211, pl. 93, 1911.

¹U. S. Dept. Agric., B. P. I. Bull. 126, 1908.

547 varieties having no russet, and 772 varieties having a very light to a solid russet covering. In the latter class only 16 are given as simply "russet"; however, several others, as the Bosc, should come under this head. The low number of russet individuals indicates that the russetting is recessive to the smooth-skinned condition, and that many of the partially russeted and smooth-skinned pears must be heterozygous—the dominance of the smooth-skinned condition being frequently incomplete.

The results obtained at the New York Agricultural Experiment Station, Geneva, New York, support such a postulation. In a cross between Kieffer ♀ and Elizabeth ♂, both parents having smooth skins, were obtained two russeted and ten smooth-skinned seedlings. This population is too few in number to allow one to draw definite conclusions; nevertheless, it approaches closely a simple 3:1 Mendelian segregation. In a cross between Bosc ♀ and Kieffer ♂, the ♀ parent having a russet skin and the ♂ parent carrying the russet condition as a recessive?, there were produced five seedlings—two of which were smooth-skinned and three russeted. The progeny of this latter cross approximate a 1:1 Mendelian ratio, viz., one individual is homozygous to the smooth-skinned condition and one individual is heterozygous to russetting. As a Russet Bartlett of unknown origin, differing from the normal Bartlett in no character except the skin—even in the self-sterility of the blossoms—is growing on the experiment station grounds, it is reasonable to suppose that the russet condition is due to a loss of a determining factor, for the loss of a character is much more common than the addition of a new one.

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SOCIETIES AND ACADEMIES

ACADEMY OF SCIENCE, ST. LOUIS

A MEETING of the Academy of Science of St. Louis was held at the academy building, Monday, November 18, President Englar in the chair.