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## Inheritance of Fruit Shapes and Sizes in the Pepper and Tomato

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mas tree for a Christmas celebration, being probably ten feet tall. This is the first time the writer has seen any pine showing signs of naturalization in our Iowa forests.

DAVENPORT, IOWA.

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## INHERITANCE OF FRUIT SHAPES AND SIZES IN THE PEPPER AND TOMATO

E. W. LINDSTROM

Both *Capsicum* and *Lycopersicum* exhibit the same correlation between fruit shape and fruit size, a correlation which is wholly lacking for the same characters in the Cucurbits. In the pepper both positive and negative correlations of shape and size were discovered in  $F_2$  generations, the sign of the correlation being dependent on the parental combinations. Accordingly the cause for the correlations must be the genetic one of linkage, due to the presence of shape and size genes on the same chromosome, a fact which has already been reported for the tomato. Fruit sizes in both genera exhibit logarithmic rather than additive distributions.

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## A VARIANT *QUERCUS ALBA* L.

J. N. MARTIN

In a group of three white oaks on the grounds of the Iowa Sanitarium, one varies considerably from the others and from white oaks in general in character of leaves and fruit and in the color of the bark.

The leaves are similar in shape to those of *Quercus macrocarpa* Michx, but are more downy beneath, resembling the leaves of *Quercus bicolor*, Wild, in this respect. The trunk is a little darker than the other trees otherwise it is of the white oak type.

The fruits are twice or more the size of typical white oak fruits. They approach the acorns of *Quercus rubra* L, in size. They are more obtuse at the apex than typical white oak fruits, and their diameter relative to their length is proportionately greater. In bud and twig features the tree is typical of *Quercus alba*.

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