

SOME MONSTROSITIES IN PLANTS.

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In the proceedings of the Indiana Academy of Science for 1905, pages 187 and 188, I have mentioned some interesting variations which I noticed in *Trillium*. Since that time I have been favored by the announcement of some additional monstrosities shown in *Trillium* by Prof. John M. Holzinger¹ of Winona, Minnesota, in a paper which he has been good enough to send me.

It occasionally happens that interesting monstrosities or variations occur in other plants. Such variations, although very common, are nevertheless often of great importance.

One of the most common foliar variations occurs in clover, and these I have found more or less abundantly, especially in *Trifolium pratense*. De Vries² states that he rarely observed clover individuals with more than one quaternate leaf. I have observed from time to time some specimens of clover which had one leaf of four leaflets, and in one instance found two specimens of clover, each of which had in addition to ten regular leaves of three leaflets, seven (7) other leaves, each one of which had four (4) leaflets. One of these quaternate leaves was beginning to form a leaf having five (5) leaflets by the splitting process. Again another plant of clover near this one having seven quaternate leaves, had in addition to the ternate leaves, one with five leaflets. Another specimen of clover had ten leaves of five leaflets each, in addition to several ternate ones. One of these leaves with five leaflets shows the origin of the supernumerary leaflets by the splitting process, as De Vries describes on page 342 of his "Species and Varieties. Their Origin by Mutation," 1905.

Another specimen of clover had in addition to the usual ternate ones, one leaf having six leaflets, and another plant of clover, one leaf having seven leaflets. These plants all grew close together in a yard and were the only ones thereabouts which showed, in the many other specimens of clover present, any of the above mentioned deviations.

¹ John M. Holzinger, *Plant World*. 4: July, 1901.

² *Species and Varieties. Their origin by mutation*, 1905, p. 340.

I have also noted deviations in the Buckeye tree where six and sometimes nine leaves occurred instead of five. Some plants, as the common blackberry, have at times flattened stems, and some have two periods of blooming in the same year, as the Weigelas and other plants.

Apparent deviations or monstrosities may sometimes be due to an injury, and therefore in deciding such points care is necessary.

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