

CONCERNING CERTAIN SMART BUGS.

It is very remarkable that many insects will fiercely attack certain varieties of a particular species of plant, and either leave certain others entirely alone or attack them but to a limited extent. For example, the roundish green leaf-galls about the size of a small pea (*Vitifolia*, Fitch), that in certain seasons and in certain localities swarm so profusely on the under side of the leaves of the Clinton grape-vine, and in a less degree on those of the Taylor and the Delaware, are never found on the Catawba, the Isabella, or any other cultivated variety of the wild Fox grape. Again, the common Rose-bug (*Macrodactylus subspinosus*) will often gather in swarms on the Clinton vine, and almost entirely neglect other cultivated varieties of grape. In all probability, however, most of these are rather cases of a particular insect preferring particular species of plants, than of its preferring particular varieties of one and the same species; for the Clinton and the Taylor—whatever may be the case with the Delaware—are most likely cultivated varieties of the Frost Grape (*Vitis cordifolia*), and not, like the Catawba group, of the northern Fox Grape (*Vitis labrusca*). But we know that in the West the Colorado Potato-bug will almost always leave Peachblow Potatoes alone, when it has a chance to fall foul of other varieties of the potato; and we recently showed that, in the East, the Three-lined Leaf-beetle nearly ruined the Early Goodrich in a certain locality, while other varieties of the Potato growing in the same neighborhood were scarcely hurt by it. (AMERICAN ENTOMOLOGIST, p. 54). Upon similar principles, our Oyster-shell Barklouse, which is a species imported from Europe, is said by reliable European authors never to be found upon a particular variety of apple grown in the Old World—the Winter Majetin apple unless our memory has deceived us. Hence we may see that insects are not by any means such mere machines as most people suppose them to be; for while it would generally puzzle everybody but an experienced horticulturist to distinguish one variety of plant from another, except by the flower or the fruit, insects often distinguish them without difficulty at any period of their growth.

It would seem from information that we gathered together at the recent meeting of the Central Illinois Horticultural Society, that the Apple-worm Moth (*Carpocapsa pomonella*), the history of which we illustrated in a recent article (AMERICAN ENTOMOLOGIST, pp. 112-114), is in the same way perfectly able to discrimi-

nate between different varieties of apples. According to Mr. E. E. Perkins, of Onarga, Ill., the Carolina Red June is much worse infested with the larva of this moth than any other variety; and the same thing has been observed of the Milam by Mr. M. C. McLean of Coles county, Ills. On the other hand, Mr. McLean, Mr. Cochran of Calumet, Ills., and Mr. Hammond of Warsaw all agree, that the Maiden's Blush is entirely exempt from Apple-worms; and the same thing is asserted of the Gilpin by Mr. McLean, Mr. Cochran, and Mr. L. C. Francis, of Springfield, Illinois.

Subsequently, on our attending the annual Meeting of the North Illinois Horticultural Society, the above good character of the Maiden's Blush was fully confirmed by Messrs. D. F. Kinney, J. W. Robson, D. B. Wier and J. S. Shearman of N. Ills. and Suel Foster of Iowa; and that of the Gilpin by Messrs. Kinney, Robson and Foster. We further learnt from Mr. E. E. Bacon of Ogle Co., and Mr. J. W. Robson of Jo. Davies Co., in N. Ills., that they found the Benoni apple to be entirely exempt from apple-worms; while on the other hand the Willow-twigg was reported by Mr. D. F. Kinney, and the Carolina Red June by Mr. Suel Foster, as peculiarly subject to the attacks of this little pest. Moreover, according to Hon. Elmer Baldwin of La Salle Co., and Mr. J. S. Seely of Kendall Co., N. Ills., the Early Harvest apple is more infested by Bark-lice than any other variety; and it seemed to be a pretty general idea, that sweet apples are generally more subject to the attacks of bark-lice than sour ones.

Practically, such observations as these are of great value, and should be multiplied and recorded as extensively as possible. The Gilpin apple, for instance, is but a poor fruit; but it is so good a bearer and so late a keeper, and withal has so tempting an appearance from its bright red color, that—as the phrase goes—"there is money in it." And when we add to these recommendations the fact of its entire exemption from apple-worms, it may perhaps be advisable to plant largely of it, in spite of its comparatively poor quality either for eating or for cooking.

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Although these are not generally to be feared in the green-house or flower-garden, yet we have occasionally suffered by them, and have found the simplest way to destroy them to be to lay fresh bones around their haunts. They will leave everything else to attack these; when thus accumulated, they can easily be destroyed by dipping in hot water.—*Peter Henderson, in Practical Floriculture.*