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"A more efficacious way of destroying these worms as far as our own instrumentality is concerned, is to search for them about the barrels and bins in which fall and winter apples have been kept. I have heard of instances where the sideboards of the bins have been taken away from time to time, as the apples were removed and thrown one upon another, in which these boards became so fastened together by the webs of the worms between them, that a number of boards could be raised by taking hold of the upper one only. There can be no doubt that the destruction of the codling-worm at this stage of its existence, would be very effective, and that it has been by far too much neglected."

Our esteemed President, Rev. C. J. S. Bethune in his remarks on this subject in our report for 1870, says "a very favourite locality for these worms is the space between the hoops and staves of the barrels. We have found hundreds in such positions especially in the winter of 1868-9. Where this occurs it is by all means worth while to scald the barrels thoroughly outside as well as inside, as soon as they are emptied or even to burn them. When boxes or bins are made use of for storing the fruit, the worms are sure to find some crevices to suit them, which should be searched for, and treated as in the case of the barrels."

2nd. *Picking the wormy apples from the trees.*—We have stated above that the young worms, soon after they have entered the apple, begin to throw out their castings through the hole which they made in entering. As this hole must be originally almost microscopically minute, it is evident that they must enlarge the opening for this purpose. We further stated that a portion of the castings adhere to the rough and shrivelled calyx, forming a rust coloured mass, which is easily seen from the ground below. Some horticulturists have availed themselves of this circumstance for the purpose of removing the wormy apples from the trees before the worms have escaped. The plan is to beat off the wormy apples, or else pick them off by means of a wire hook attached to the end of a pole. These two methods can be very usefully combined by first jarring or beating off those apples which readily fall, and then going over the trees a second time with the pole and hook. The apples thus removed should of course be fed to swine, or otherwise treated so as to destroy the worms within. Too much value cannot be attached to these simple expedients, which in the case of a few choice trees, or even a small orchard, might almost be made to supercede the necessity of any other treatment."

"3rd. *Gathering the wormy wind-fall apples from the ground, or letting swine or sheep have the range of the orchard.*—This plan has been generally recommended as of very great importance. Its efficacy will depend, of course, upon the proportion of worms which fall to the ground in the apples, as compared with those which leave the apples whilst hanging upon the tree. Those which crawl down the branches spin up before reaching the ground, and those which let themselves down by a thread, would, for the most part, be detected only by birds or by domestic fowls, and as there is reason to believe that they usually perform this act in the night, even these must fail to capture them."

"With regard to those wind-falls which contain worms, it is necessary to gather them frequently, that is every day or every second day at farthest. The apples do not usually fall until the worms are nearly matured, and they leave them in the course of a few days. If you examine indiscriminately a large number of wind-fall apples lying under the trees, you will be surprised to find how few worms they contain, they evidently having left the fruit before it fell, or soon after."

"But the most important question in this connection is, what proportion of the worms leave the apples before they fall from the tree? I have endeavoured to arrive at an approximate estimate upon the subject by putting two or more bands upon the same tree, upon the presumption that the worms descending from above will spin up in the upper band, and those crawling up from the ground in the lower. The following tables numbered for the purpose of reference give the results of these experiments. The wind-fall apples were left in every case as they fell upon the ground."

"On the tenth of July, 1871, I put bands as follows, upon four trees, the ground underneath being bare, or free from grass or rubbish of any kind. One band was put about a foot from the ground, another about two feet higher on the trunk, and others on two or three of the larger branches, eight or ten feet from the ground. They were examined July 28th, eighteen days after they were put on."

No. 1.

Whole number of worms in all stages.....

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