

HYDROCYANIC ACID GAS TREATMENT OF NURSERY STOCK.

The following method is given in Bulletin 87, of the New York Experiment Station, Geneva: "This gas is lighter than air, hence will work better if the generator is placed below the pile of trees to be treated. A convenient way would be to make a rack a little less than six feet long, five feet wide, four feet high. The bottom of the rack could be made of loose slats raised a few inches above the ground to allow room to place the gas generator under the rack. When the rack is filled with trees, a piece of gas-tight canvas thrown over the whole and fastened down at the sides by throwing dirt on the margins would complete the apparatus. One side could be left open until the water and chemicals are placed in the dish and the dish slipped beneath the rack. This gas is a deadly poison, and great care should be used not to breathe it while placing the dish under the rack.

"To generate the gas pour three fluid ounces of water in a glazed earthenware vessel, to this add one fluid ounce of sulphuric acid; place under the trees, and then add one ounce by weight of fused cyanide of potassium. This will make gas enough to fill a space of 150 cubic feet." An hour's exposure will likely kill all the scale insects.

ORCHARD REMEDIES.

When trees are at all badly infested there is only one treatment to be recommended with safety, and that is to root up the trees and burn them at once. Even when only slightly infested the work of washing and spraying may not be done thoroughly enough to destroy every scale, and as the insects multiply so rapidly the greatest care must be taken not to allow even one scale to remain. The advice given is to thoroughly destroy all stock and all trees found to be infested. During the winter and early spring, before the insects appear, some may desire to treat the trees before the inspector arrives to destroy under the Act. In that case the two remedies or methods of treatment are with soap wash and with kerosene.

Soap Washes. "The soap wash should be made by dissolving two pounds of fish-oil soap or so called 'whale-oil soap' in one gallon of water. *It is absolutely necessary that a potash soap be used, as soda soap cannot be kept in solution at this strength, and are not so efficient as the former.* The manufacturer should be required to guarantee his soap to meet the requirements as to strength and solubility. This wash should be used warm, if possible, and preferably on a warm day."

Kerosene. "If old orchard trees are infested, the probability of clearing out the pest is not at all promising. But if the trees are valuable, and have not been seriously injured, the attempt is worth while. They should first be judiciously pruned, but large wounds avoided; the trunk and branches should be cleared of rough bark, and especially the sprouts and any trash removed from around the base of the tree. Then for all orchard fruit except peach and cherry, spray with pure kerosene, *using great care to only moisten the bark.* The tree must be washed, every twig and branch, but do not put on enough oil to