### *Tobacco.*

A strong decoction that is very obnoxious to insects and at the same time poisonous (nicotine) can be made from tobacco (stocks, refuse leaves, sweepings, etc.), by steeping in water for a prolonged period. This could be made a very valuable source of an insecticide by those people living in a tobacco district, or near a tobacco or cigar factory.

A good way to use the strong extract, although it can be sprayed as it is after it is diluted with water to about the colour of strong tea, is as follows:

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| Hard soap | 1 pound. |
| Water | 8-10 gallons. |
| Strong tobacco extract | 1 gallon. |

Dissolve the soap in boiling water, add the decoction, and then make up to 8-10 gallons.

### *White Hellebore.*

This is a powder obtained by grinding up the dried roots of a plant known as Veratrum Album. The powder is of a light yellowish colour and possesses a rather pleasant odour, and contains as its active principle a very powerful alkaloid called Jervine. It kills both by poisoning the insect and by stopping up the breathing pores, and can thus be classed as both a food poison and a contact insecticide. Hellebore is much less poisonous than the arsenicals and soon loses its poisonous action when exposed in the air; thus it can be used on plants bearing fruit which is just about ready for market, with much more safety than can be the mineral poisons. This volatility of the alkaloid also shows the necessity of using a fresh article and one that has been kept away from the air in a tightly sealed receptacle.

Use either the dry powder or with water, 1 oz. to 2 gallons warm water.

### *Pyrethrum (Insect Powder, Buhach).*

This powder is also called Dalmatian Insect Powder and Persian Insect Powder. It is also, like hellebore, obtained from plants, being the pulverized flowers of the botanical genus Pyrethrum. Value as an insecticide is due to the presence in it of an oil which is exceedingly poisonous to most insects, but practically harmless to human beings and the higher animals. It can be used with impunity, therefore, and on account of this fact is of special value.

The oil which imparts the killing power (largely by contact with the body of the insect) is very easily disseminated into the surrounding atmosphere and thus lost. For this reason these powders must be fresh and have been kept in tightly sealed receptacles, else they will be ineffective.