

Recipes : Solution No. 1—for sprinkling, disinfecting, etc.—half a teaspoonful of soluble creolin in a litre of water.

Solution No. 2 For washing hives, platforms, etc.—two teaspoonfuls of soluble creolin to a litre of water.

Solution No. 3—for feeding—a quarter of a teaspoonful of soluble creolin in a litre of syrup.

The water of the syrup ought always to be poured upon the top of the creolin and thoroughly mixed with it; and the mixture should be well shaken before using.

Use. Prepare a hive and a proper floor board, which has been washed with solution No. 2. Then, after having taken out the comb from the infected hive, shake off the bees, and sprinkle the comb with solution No. 1. Take out all superfluous comb and spray it with solution No. 2, and extract the honey from it. The honey can then be boiled, and if it is used for feeding the bees, it can be diluted and phenol added in the proportion of one quarter to a teaspoonful to a litre of the diluted honey. The combs are then put back and the bees fed with medicated syrup. If the bees take the syrup, the dose can be gradually increased; but we must be careful not to give more than one teaspoonful to a litre of syrup. If the bees refuse to touch it, which is not at all improbable, if they have access to other food, pour the medicated syrup upon the neighboring combs, when the bees will quickly become habituated to it, and afterwards will take it in the ordinary manner. The vapour of creolin also acts as a disinfectant. A small phial of concentrated creolin may be placed in a corner of the hive, and lightly stopped with a cotton plug; and the lower part of the cotton being in contact with the liquid, capillarity will take place and draw up the creolin, and the heat of the hive will produce the necessary evaporation. A piece of blotting paper can be used by saturating it with creolin, and placing it upon the floor board or in a box covered with perforated zinc, so that the bees will not come into contact with the disinfectant.

Creolin is neither poisonous nor corrosive for man; but, in strong doses, it kills insects. Consequently it is necessary not to give greater strengths than those mentioned above. In the use of this remedy it is necessary to stimulate the production of brood by feeding liberally with medicated syrup; if the disease does not yield to this treatment, the queen should be removed.

Experiments on the antiseptic value of creolin. a. Sloped agar—each tube, inoculated with one loopful of spores, was plugged with cotton wool, saturated with creolin, and then capped with lead foil. Tubes were kept at 22° C. and 37° C.

Result : After four days at 22° C.—No growth, except beneath the condensation water in the tubes.

After four days at 37° C.—No growth.

At the end of this time new cotton plugs were inserted into the tubes in the place of the creolin ones, and the cultures again incubated, when good growth ensued in 24 hours.

b. Agar plates were made and streaked with two loopfuls of spores. In each plate was placed a square inch of thick blotting paper, with four drops of creolin on it. The plates were kept in the incubator at 37° C., and removed in 48 hours, when very slight growth was manifest. On removal of the creolin and further incubation of the plates, good growth was obtained. Control plates gave copious growth. These experiments were repeated with only one drop of creolin.

Result, after 24 hours—abundant growth. With two drops of creolin,

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