

## How to use Thymol in syrup feeds for honeybees

The Thymol referred to in this text is the crystalline substance obtainable from your local bee supplies vendor and intended for use in honeybee care only.

### Safety



Thymol is harmful to you and the environment. It occurs as a white crystalline powder or solid with a pungent smell. It is an irritant to skin and respiratory organs and can cause serious eye damage. Please read all safety data and safe use recommendations before working with Thymol. Work in a well ventilated area, and always wear appropriate Personal Protective Equipment. Store all Thymol products in a secure place to prevent accidental exposure.

### Stock Solution

Thymol crystals are not readily soluble in water. In order to use in honeybee feeds it is necessary to first dissolve the crystals in a suitable spirit solution such as surgical spirit, methylated spirit, or isopropyl alcohol. Once dissolved, the mixture or 'stock solution' can be stored for quite a long time in a sealed container. The recommended mix for a 'stock solution' is 30gm Thymol crystals to 150ml spirit.

This strength of mix is widely known as 'Manley Strength', Rob Manley often being credited with first using Thymol in honeybee syrup feed. It is worth noting that where 3X or 4X Manley Strength is recommended, it does not mean three or four times as much Thymol on the spirit mix, but means instead that three or four doses of the stock solution should be used.

### Use in Syrup Feeds

Autumn syrup feed is the heavy syrup mix of 1 pint of water to 1 kg of granulated sugar (cane or beet). This gives the colony a fairly thick substance that is easily inverted and stored in the comb. Sugar syrup on its own unfortunately has a tendency to ferment in the comb as it is being stored over winter, as does any syrup kept in containers which quickly develop the black fungal sludge rendering it unusable. Fermented syrup will cause bad dysentery in the colony and can encourage the spread of nosema, a fungal pathogen that affects the bee gut and spreads quickly around the hive.

Adding a small amount stock solution to the syrup will greatly improve its useable lifespan when stored ready for use in containers and when stored by the bees in the comb. The recommended general dose is 2.5ml stock solution to 4.5lt syrup (half a teaspoon of stock solution to one gallon of syrup which works out at just under 2X Manley Strength). Well rinsed plastic 2.2lt milk containers are convenient for storing and using home made thymolised syrup feeds.