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**DIRECTIONS FOR
MAKING BORDEAUX POWDER**

MISSOURI EXPERIMENT STATION FORMULA

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DIRECTIONS FOR MAKING BORDEAUX POWDER

The difficulty of using liquid sprays for orchard trees in some sections of the State, owing to the hilly character of the land etc., has led this Station to test dust spray mixtures where the use of liquid compounds are difficult or impracticable. About two years ago we suggested a powder that might be employed against *fungi* in lieu of the well known liquid Bordeaux mixture. The latter contains a blue hydrate of copper and calcium hydrate (slacked lime), suspended in water which is used as the carrier of the toxic copper compound. In the case of the Bordeaux powder the same hydrate of copper is made, and slacked lime is used as a carrier.

Experiments to test its efficiency are being conducted in different parts of the State under the immediate direction of Mr. E. H. Favor, of the Department of Horticulture. His experience had caused him to modify the directions for making the dust that were given in our bulletin 60, January 1903, whereby time and labor are saved and much of the annoyance of the flying lime dust is avoided. We have found it well also to increase its copper content.

DIRECTIONS FOR MAKING ABOUT 250 POUNDS OF POWDER.

Materials:

- 1 bbl. good quick-lime.
- 10 lbs. copper sulphate ("blue stone," "blue vitriol").
- 2 quantities of water, of 4 gallons each.
- 1 wire sieve, about 18 in. across, having 25 to 30 meshes to the *linear* inch.
- 3 vessels, two that will hold about 5 gal. each, and one 10 gal. or more.

Method:

1. Dissolve the blue stone in four gallons of hot or warm water. This may be done more easily by hanging it in a coarse bag just below the surface of the water. The solution when cold, is practically saturated.

2. Pick from the barrel of lime five pounds of the whitest and best lumps. Slack the rest to a fine, *perfectly dry* dust and spread it on a floor.

3. From the selected five pounds of lime and four gallons of water make a good "milk of lime."

4. Pour the cold milk of lime and cold copper sulphate solution *at the same time* into a third vessel, and stir until no streaks of a green substance are to be seen in the resulting blue, thick mass.

5. Scatter the blue material (water and all) about in the lime dust and mix with a rake. The lime will absorb the water.

6. While this is still somewhat damp pass it through the sieve, using a wooden block to rub it through with.

7. Mix thoroughly and spread out to dry. A day or two will be required for it to become thoroughly dry. It will keep indefinitely.

If it is desired that more copper be present, use proportionately more lime and water. In this case care must be taken to prevent caking while the final mixture with lime dust is drying.

One may add finely ground Paris Green as an insecticide for canker worm or codlin moth, twelve and a half or thirteen pounds to the above quantity is a good proportion.

The dust is applied to the trees with any of the standard dust spraying machines,¹ better while the tree is wet with rain or dew.

¹Machines for this purpose are manufactured by Kansas City Dust Sprayer Co., Kansas City, Mo.; T. T. Kaiser, Stanberry, Mo.; Hillis Bros., McFall, Mo.; Ozark Dust Sprayer Co., Springfield, Mo.; Leggett & Brother, New York City.