

*Ammoniacal Copper Carbonate.*

This spray is made from basic copper carbonate the preparation of which has just been outlined under "copper carbonate." When ammonia is added to this material, it dissolves to form a deep blue solution, and this solution diluted with the requisite quantity of water forms the well-known spraying compound.

This fungicide is of use in that it can be applied to trees when the fruit is well advanced in the stage of maturity without causing any disfigurement, such as would result from the employment of Bordeaux. This last material leaves a coating if sprayed just a short time before the fruit is picked, which does not enhance marketing qualities, and which, further, might cause poisoning.

Following are the quantities of material to use:

Copper carbonate .....	5 ounces.
Ammonia (sp. gr. 26° Baume) .....	3 pints.
Water .....	45 gallons.

*Eau Celeste.*

The name of this material indicates that it was originated in France, and it was there, in 1885, it first came into use. It has decided action against fungi, but it exerts quite a caustic action on foliage, and for this reason cannot be much recommended. It is made in the following way:

Copper sulphate .....	1 pound.
Hot water .....	2 gallons.

When the crystals are dissolved and the liquid has cooled, add:

Ammonia (sp. gr. 22° Baume) .....	1½ pints.
Water, to make .....	25 gallons.

When the ammonia is first added a precipitation occurs, but on the addition of the excess this precipitate disappears and a deep blue solution results.

*Copper Sulphate.*

As was stated when dealing with Bordeaux mixture, this compound can be used to combat fungous diseases on plants, but if used in a solution concentrated enough to be of material benefit would destroy the foliage. Nevertheless, for dormant wood it can be used quite freely, and is recommended in the following strength:

Water .....	15-25 gallons.
Copper sulphate .....	1 pound.