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MUSKMELON REMINDERS

Seed Treatment
Plant Growing
Spraying Schedule

By
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Bordeaux Mixture

Bordeaux is made from copper sulphate (blue stone, blue vitriol), lime, and water. The first figure of a bordeaux formula always indicates the amount of copper sulphate in pounds, the second figure the amount of hydrated lime in pounds, and the third figure the amount of water in gallons. A 4-6-100 Bordeaux will require:

4 pounds copper sulphate,
6 pounds hydrated lime,
100 gallons water.

Lime is available in two forms: "quick" or "lump" lime and hydrated lime. All formulae in this bulletin for making Bordeaux call for hydrated lime. If "quick", or "lump" lime is used, reduce the amount to two-thirds that specified for hydrated lime in the formula. Some kinds of lime are undesirable for spraying purposes.

"Instant Bordeaux" Method

A method of preparation recently coming into extensive use calls for pulverized, powdered, or sugar copper sulphate. This does not have to be made up into a stock solution as it dissolves quickly, with agitation, in the sprayer tank. A satisfactory procedure follows:

1. Fill sprayer tank about one-fourth to one-third full with water.
2. With the agitator in operation, place the copper sulphate on the tank screen and wash through, continuing to add water until the tank is nearly full. Allow about two minutes for the copper sulphate to dissolve.
3. Place hydrated lime on the tank strainer and wash through, or mix with water in pail or tub and pour through tank strainer.
4. Add calcium arsenate or nicotine sulphate at this time if either is to be used. Fill tank with water and apply. Keep agitator in operation continuously after copper sulphate is added.

Seed Treatment

Soak the seed for five minutes in a one to 1,000 solution of corrosive sublimate, (1 oz. in 7½ gallons), and wash for 15 minutes in running water. Corrosive sublimate solution should not be put into metal containers and should be used only once. After one batch of seeds has been soaked, the germicidal action of the solution is greatly reduced and a fresh solution must be used for each batch of seeds. For ease in handling during the disinfection process, the seeds may be placed in a cloth bag large enough to allow for the swelling of the seeds. During the treatment the seeds should be stirred with a stick to remove air bubbles and insure the wetting of the seed coats. After the washing process the seeds should be spread out to dry in a well-ventilated place.

MUSKMELON REMINDERS

SANITATION

1. Clean out cold frames thoroughly or move frames to new location.
2. Eradicate all milk-weed, poke weed, ground cherry, wild cucumber, catnip, etc., as these are hosts or carriers of mosaic.
3. Remove trash and rubbish in and around field where squash bugs lurk.
4. Plant melons on ground not used for this or related crops last year.

SEED

1. One pound of seed will provide plenty of strong plants for one acre and allow for thinning in the bands.
2. The muskmelon is an insect-pollinated crop and a high percentage of cross-pollination always occurs.
   A. Therefore obtain a good strain of any variety you select.
   B. The two leading varieties are Hearts of Gold and Honey Rock. Other varieties used are Bender's Surprise and Hales' Best.
3. There are several serious leaf diseases carried on the seed. These are: Anthracnose, Angular Leaf Spot, and Macrosporium Leaf Spot.
   A. Treat seed one week before planting with **Corrosive sublimate** (1-1,000, i. e. in a solution made by dissolving 1 ounce of the poison in 1,000 ounces or about 7½ gallons of water) for five minutes, then wash in fresh water for 15 minutes. Dry seed thoroughly. (For details see back cover.)

PLANT GROWING

1. Use only well decomposed, fibrous compost to fill bands.
2. Apply a 2-12-6 fertilizer to compost at rate of one pound to each well filled wheelbarrow.
3. Fill band with compost and pack to within one inch of top.
4. Place two to three seed (for a single plant per band) in band; then cover with one-half inch of fresh sand.
5. **Size of Bands**
   A. For growing one plant per band in three and one-half weeks use a three-inch band.
   B. For growing two plants per band in four weeks use a four-inch band.
   C. For growing two plants per band in four and one-half to five weeks use a four and one-half inch band.
6. Spray plants in the bed with 4-6-100 Bordeaux about three to five days before field setting.
7. If striped beetles are present in cold frames dust with gypsum, 19 parts to one part calcium arsenate dust before taking to the field.
8. Water only on mornings of sunny days. One good soaking when bands are dry is much better than frequent sprinkling.
9. Watch ventilation—never allow moisture to condense on the underside of glass or leaves of plants—this is ideal for development of leaf diseases.
   A. Try to hold the bed at 80-85° F. during the day and about 65-70° F. at night.

Planting distances, number of bands and sash required per acre.

Field Spacing	Number of Bands Required Per Acre	*Number of Sash Required Per Acre Using 3″ Bands	*Number of Sash Required Per Acre Using 4″ Bands
6 x 4 feet	1815	6.3	11.2
6 x 4½ "	1613	5.6	10.0
6 x 5 "	1452	5.0	9.0
6 x 6 "	1210	4.2	7.5
7 x 4 "	1556	5.4	9.6

*No allowance made for rejection of poor plants or for losses due to various causes.

FIELD OPERATIONS

1. On light soils apply five to eight tons of manure well mixed with soil in hills or rows.
2. Do not set plants in the field until warm weather arrives.
3. Apply 300 pounds of 4-16-8, 4-16-4, or 2-12-6 in strips two and one-half inches from the plant, on each side of the hill, three and one-half to four inches deep immediately after plants are set. This can be applied with the fertilizer attachment on the cultivator.
   A. Make another 200-300 pound application three to four weeks later at time of cultivation. At this time the fertilizer band should be from 10-16 inches from the hill.
   B. If vines are not making normal growth, and if the weather is favorable, make a third application the latter part of July.
4. Insect and Disease Control.
   A. Have plants covered with calcium arsenate-gypsum (1-19) dust when the plants go into the field or cover immediately after setting. It is very important to keep plants covered with this dust—if it rains apply dust immediately afterward.
   B. Dusting program—if the duster is to be used exclusively.
      1. Keep plants covered with calcium arsenate-gypsum dust.
      2. Ten days after setting apply 15-85 copper-lime dust to prevent leaf diseases.
         a. If beetles are not too prevalent omit pure arsenate-gypsum dust and apply 15-5-80 (copper, arsenate-lime) dust. (30 to 35 pounds per acre.)
         b. If aphids are present use a 4 per cent nicotine dust.
         c. Frequency of application of copper-lime dust depends upon weather conditions, but on the average, five to seven applications are usually necessary to control leaf diseases.
   C. Spraying program—if a sprayer capable of 300 pounds pressure is available:
      1. Use arsenate-gypsum dust early part of season to control beetles.
      2. Shortly before perfect blossoms appear spray with a 4-6-100 Bordeaux plus two pounds of calcium arsenate. (For details see back cover.)
         a. Apply with 300 pound pressure (make vines dance); 100 to 125 gallons are required to cover thoroughly one acre at this time.
         b. Frequency of applications depends on weather conditions but five to seven applications may be necessary.
      3. If aphids are present add one pint of nicotine sulphate to each 100 gallons of 4-6-100 Bordeaux.