LAND PREPARATION

There are choices that can be made in preparing land for watermelon and pumpkin. It may not be necessary to plough and harrow the entire area, since the plants are further apart. It may only be necessary to prepare the spots where the seeds or seedlings are planted. Limestone should be incorporated into the top 4 in. at a rate of 25 to 30 (100 lb) bags per acre. Apply half that amount to sandy soils.



PLANTING AND SPACING

Traditionally, watermelon and pumpkin were planted by seed, but recently many farmers are using seedlings. These seedlings are produced in cells because root damage is not tolerated by the plant, so plucking seedlings from a seed bed is out of the question. Traditionally, spacing has been 4–5 ft by 5–6 ft. It is also possible to plant much closer in the row, with rows much further apart, e.g., 2 ft within the row and rows 10–15 ft apart. This may allow for easier management of operations like weed control, pest control, fertilizing, and irrigation.



4–5 ft.
between rows

4–6 sq. ft.
per plant

IRRIGATION

For any commercial-size plot, sprinkler irrigation from Caribbean Chemicals will dramatically reduce costs.

FERTILIZING

Since virtually all soils in Guyana are deficient in calcium, and limestone takes a month or more to act depending on the weather, it is important to apply Agrical at a rate of 1 oz (30 ml) per gallon. Apply 100 ml of the mixture to each plant. For large areas, apply at a rate of 5 gallons per acre. First dose at 1 week: Elixir 7-21-21, 10 (50 lb) bags per acre. Fersan 15-15-15 or 12-12-17-2 at a rate of 5 (110 lb) bags per acre may also be used. However, the nutrients in these fertilizers, especially the phosphorus, take much longer to dissolve in soil water and become available to the crop. A second dose at 3–4 weeks of Sulphate of Ammonia may be applied if the leaves are not green enough or large enough. At flowering, Muriate of Potash may be applied at a rate of 1–2 (110 lb) bags per acre. Alternatively, 1 (110 lb) bag of Muriate of Potash and 1 (50 lb) bag of Elixir 7-21-21 may be applied per acre. For small areas, 20 g per plant of the fertilizer may be applied.



WEED CONTROL

Fusil or Select can control grass weeds but not broadleaf weeds or sedges. This is especially useful after the crop begins to vine, since it will not harm the crop and can be sprayed over the crop plants. Carista is non-selective and would kill the crop if it is sprayed over it. It works by eliminating the chlorophyll in the plant, so if enough of the plant is covered by the spray, it will not be able to produce food and therefore dies. However, it will only affect the crop plant if the spray touches it, and it will only affect the chlorophyll on the spot it has touched. It will not cause injury like paraquat or affect the roots like glyphosate. Apply Cuprofix or Coback with caution as it may cause phytotoxicity under certain conditions.



A GUIDE TO WATERMELON AND PUMPKIN PRODUCTION



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A SUCCESSFUL WATERMELON AND PUMPKIN GUIDE



PLANT



Drench **Agrical** 60 ml/gal (liberate calcium and reduce soil acidity) + **Shield** 15 ml/gal (protect from root fungus) + **Frip** 10 ml/gal (protect from cutworms and sucking insects) + **Vyd-8** 10 ml/gal (protect from nematodes, necessary mainly on sandy soils) + **Breakthru** 1 ml/gal (for the drench to penetrate the soil effectively). Spray **Fastak**, **Tengard**, or **Karatax** 5 ml/gal (blanket spray for cutting insects)

WEEK 1



Drench **Bountiful Harvest** 30 ml/gal (encourage root growth) + **Ryzo 500** 15 g/gal (fungicide against root diseases) + **Bio 20** 10 ml/gal (promote root depth and development) + **Breakthru** 1 ml/gal (for the drench to penetrate the soil effectively). Spray **Advance** 10 ml/gal (kill insect eggs and immature stages) + **Cuprofix or Coback** 10 g/gal (protect from fungus and bacteria affecting shoot) + **Phortify** 10 ml/gal (promote root growth and protect from Phytophthora) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 2



Drench **Agrical 60** ml/gal (liberate calcium and reduce soil acidity) + **Shield** 15 ml/gal (protect from root fungus) + **Frip** 10 ml/gal (systemic insecticide against most insect pests) + **Breakthru** 1 ml/gal (for the drench to penetrate the soil effectively). Spray **Advance** 10 ml/gal (kill insect eggs and immature stages) + **Bio 20** 15 ml/gal (promote root depth and development) + **Tengard** 5 ml/gal (for cutting insects) + **Phortify** 10 ml/gal (promote root growth and protect from Phytophthora) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 3



Drench **Evergreen** 30 ml/gal (biostimulant) + **Saeta** 30 g/gal (calcium and protect against Phytophthora) + **Breakthru** 1 ml/gal (for the drench to penetrate the soil effectively). Spray **Caprid** 5 ml/gal (kill sucking, biting insects, eggs) + **Bellis** 15 g/gal (disease protection and stimulate production) + **Acrobat** or **Pilot** 10 g/gal (disease protection, especially Phytophthora) + **Phortify** 10 ml/gal (promote root growth and protect from Phytophthora) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 4



Drench **Shield** 15 ml/gal (protect from root fungus) + **Evergreen** 30 ml/gal (biostimulant) + **Saeta** 30 g/gal (calcium and protect against Phytophthora) + **Breakthru** 1 ml/gal (for the drench to penetrate the soil effectively). Spray **Advance** 10 ml/gal (kill insect eggs and immature stages) + **Frip** 5 ml/gal (systemic insecticide against most insect pests) + **Cuprofix or Coback** 15 g/gal (protect from fungus and bacteria affecting shoot) + **Calmax** 15 ml/gal (provide calcium) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 5



Spray **Caprid** 5 ml/gal (kill sucking, biting insects, eggs) + **Acrobat or Pilot** 10 g/gal (disease protection, especially Phytophthora) + **Bellis** 15 g/gal (disease protection and stimulate production) + **Cytokin** 5 ml/gal (flower initiation) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 6



Spray **Advance** 10 ml/gal (kill insect eggs and immature stages) + **Frip** 5 ml/gal (systemic insecticide against most insect pests) + **Cytokin** 5 ml/gal (flower initiation) + **Quad 14** 10 ml/gal (provide NPK and Ca, stimulate immunity to disease) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 7



Spray **Caprid** 5 ml/gal (kill sucking, biting insects, eggs) + **Glory** 15 g/gal (protect from fungus disease) + **Phortify** 10 ml/gal (support flowering and protect roots) + **Calmax** 10 ml/gal (provide Ca) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 8



Spray **Advance** 10 ml/gal (kill insect eggs and immature stages) + Frip 5 ml/gal (systemic insecticide against most insect pests) + **Cuprofix or Coback** 15 g/gal (protect from fungus and bacterial disease) + **Sugar Express** 15 g/gal (fruit and flower development) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 9



Spray **Caprid** 5 ml/gal (kill sucking, biting insects, eggs) + **Glory** 15 g/gal (protect from fungus) + **K41** 15 ml/gal (fruit development) + **Quad 14** 15 ml/gal (provide NPK and Ca, stimulate immunity to disease) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

WEEK 10



Spray **Advance** 10 ml/gal (kill insect eggs and immature stages) + **Pirate or Secure** 5 ml/gal (control Diamondback Moth and other pests) + **Cuprofix or Coback** 15 g/gal (protect from fungus and bacterial disease) + **Sugar Express** 15 g/gal (fruit and flower development) + **Breakthru** 1 ml/gal (helps the spray to spread over and enter the leaf).

After week 10 continue to alternate weeks 9 and 10 until the end of the crop