GROWING CASSAVA

Soil Tests

You must do a soil test prior to planting. The results will guide the type of fertilizer you should use and its rate of application. A pH test is also very important, since the pH of the soil affects nutrient availability.

Contact the Ministry of Blue and Green Economy, Agriculture and National Food Security to conduct the soil test at least 4 months prior to planting. The extension officers will provide you with the technical assistance to interpret the results and guide the development of the fertilizer regime.

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Cassava can grow on nutrient poor soils where other crops fail. However, to achieve optimal yields, you should use fertilizer treatments. Healthy plants produce higher yields and are generally more resistant to pests and diseases. In addition, cassava extracts large quantities of nitrogen (N), and potassium (K) and smaller quantities of phosphorous (P), calcium (Ca) and magnesium (Mg) from the soil. It is important that you replace these, especially when the crop is being grown in successive cycles.

Fertilizers are best applied in 2 split applications: at planting, or shortly thereafter and then about 90 days after planting.

The 2nd fertilization treatment must be high in potassium to promote root bulking.

Adding well-cured organic matter and intercropping can improve the soil's fertility.
**Treating Acidic Soils**

If the soil test reveals the soil is too acidic, you can raise the pH by applying limestone. Again, extension officers will determine the rate and timing of application of limestone based on the soil test results. Reducing acidity will make soil nutrients more available to the plants. Limestone application must be done between 3 months and 2 weeks prior to planting the cassava stakes.

**Application of Fertilizer Treatments**

Generally, fertilizers are applied in split applications: at planting, or shortly thereafter and then about 90 days after planting when cassava reaches maximum growth.

At planting or up to 5 days after planting is the best time to apply the first fertilizer treatment. The fertilizer should be placed 4 cm from the plant and 6 cm deep. It must be covered with soil to prevent volatilization of nitrogen and loss through run off and erosion. (Volatilization is the transformation of a liquid chemical into a vapor that then escapes into the atmosphere.)

The second fertilizer application should take place approximately 90 days after planting. The fertilizer used should be high in potassium to promote root bulking. This fertilizer must be placed approximately 15 cm from the base of the plant.

Do not fertilize the crop with extra nitrogen as this can cause excessive vegetative or leafy growth at the expense of tuber formation and possibly increase the cyanide content in the tubers.

**Use of organic matter**

Manure and compost can be added to the soil to improve its structure, water retention, fertility and biological activity. The rate of application will be guided by the soil test. If animal manure is used, ensure it is properly cured to avoid burning the plant.

**Intercropping**

Intercropping of cassava is not practiced in Dominica. However, because cassava establishes slowly, farmers in other parts of the world have used the space between plants to cultivate a variety of short-term crops such as legumes, maize and some vegetables. It is important that the intercrops don’t shade the cassava during early growth, as this can impact tuber development.

Suitable intercrops will provide nutrients, control weeds and provide farmers with an additional income stream as they await maturity of the cassava crop.