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MAIZE

Maize farming, also known as corn farming, is one of the most viable agricultural business ideas in Africa, including Nigeria. It is consumed in various forms and feeds over 500 million Africans yearly. According to a research carried out by the IITA, over 800 million tonnes of maize is produced yearly, with Africa only accounting for about 6.5% of this figure. This is extremely low considering the fact that America produced about 32% of the world's total maize crops grown in 2010 alone, followed by China. Of the percentage produced in Africa, Nigeria is the largest producer with about 8 million tonnes of maize produced yearly in the country, followed by South Africa, Tanzania, Kenya, and Uganda. The small percentage Africa has in the worldwide production of the maize crop shows there's still an abundant opportunity for maize cultivation on the continent. The use of Maize crops spans through cooking starch, the production of dairy products like milk and yogurt, eggs, meats, and in the manufacturing of animal feed (livestock feed). It's a great source of proteins, carbohydrates, vitamin B, iron, and minerals, and digests both easily and fast. In several countries around the world, maize is used largely for just the production of animal feed, but in Nigeria and many other countries in Africa, maize is consumed on a wide margin as a cereal crop and for several other purposes, making it one of the three most consumed cereal crops in the world, right after rice and wheat.

To venture into commercial maize farming business in Nigeria, you seriously need a well-detailed business plan. Without your business plan for commercial maize farming in Nigeria, your chances at success are very low. This maize farming business plan will help direct your efforts in the course of your farming business. The business plan can also be used to access loans. Without your business plan, you cannot access the government loans for agriculture in Nigeria. Commercial banks and private investors cannot take you seriously if you don't have a business plan. Your maize farming business plan is your roadmap to success in your business venture.

IMPORTANCE

Maize is the most important cereal crop in sub-Saharan Africa. It is a staple food for those living in Sub-Saharan Africa. Nigeria alone produces almost 8,000,000 tons of maize each year, with Africa harvesting a grand yearly total of almost thirty million hectares of field corn. Maize is increasingly used as a feedstock for the production of ethanol fuel. Ethanol is mixed with gasoline to decrease the number of pollutants emitted when used to fuel motor vehicles. High fuel prices in mid-2007 led to higher demand for ethanol, which in turn led to higher prices paid to farmers for maize. This led to the 2007 harvest being one of the most profitable maize crops in modern history for farmers. Because of the relationship between fuel and maize, prices paid for the crop now tend to track the price of oil.

PRODUCTION

Production figures from 2011 show that the area planted with maize in Nigeria has increased from 2009 with an associated increase in production during the same period. It is an extremely versatile crop that can be grown in wet, hot climates, and also thrive in cold, dry or wet conditions. Maize is the most productive grain crops in the middle and northern belts of Nigeria where sunshine is adequate and rainfall is moderate. In these areas storage of grains can be accomplished without much damage from the insect pest. The recent achievement by the breeders in the development and release of superior maize varieties with higher yield potentials and better resistance to insect and disease has also played a central role in increase maize production in Nigeria. Worldwide production of maize is 785 million tons, with the largest producer, the United States, producing 42%. Africa produces 6.5% and the largest African producer is Nigeria with nearly 8 million tons, followed by South Africa. Africa imports 28% of the required maize from countries outside the continent. Most maize production in Africa is rain fed. Irregular rainfall can trigger famines during occasional droughts.

CONSUMPTION

As one of Africa's dominant food crop, Maize can be consumed in varied forms such as maize flour for confectionaries, semo (for swallow with soup), as corn beef, feed mill (for animals feeding), as roasted corn, boiled or prepared as porridge. In all parts of Africa, green (fresh) maize is boiled or roasted on its cob and served as a snack. Like many other regions, it is consumed as a vegetable although it is a grain crop rich in vitamins A, C and E, carbohydrates, essential minerals, and contain 9% protein. They are also rich in dietary D and calories which are a good source of energy. Also, more than 60% of Nigeria's maize production is consumed by the industrial sector for the production of beer, malt drinks, maize flakes, starch, syrup, dextrose and animal feeds because there is so much value in the industrial processing of maize, especially into animal feed.

CHOICE OF LAND

The land to be used for maize farming in Nigeria should be well drained sandy loam or loamy soil. These two types of soil are ideal for planting maize.

Land Preparation

Before planting maize, the land must be prepared to receive the maize. This preparation can be done using any method (Mechanical, Chemical and Manual) that can adequately remove weeds and keep the soil loose for good seedbed. As much as possible, incorporate residue of the previous crop into the soil. For large scale planting, clearing method should ensure preservation of the topsoil when uprooting and clearing trees mechanically. Plant immediately after land preparation to allow maize to get ahead of weeds. When the land is ploughed mechanically, the depth of planting should not be more than 5 cm (2 inches).

Time of Planting

The two seasons or periods for successful maize farming in Nigeria are:

Early Season

- In the Forest zone, the optimum planting date is between 15 March and 1 April, although planting could be done as soon as rainfall becomes steady.
- In the Derived Savannah zone, plant as soon as the rainfall becomes steady, between 1-30 April.
- In the Southern Guinea Savannah zone, planting could still be done as late as May and June, depending on rainfall.

Late Season

Late season maize farming in Nigeria is recommended only for areas where rainfall is likely to be adequate. Popcorn is best planted in the late season where proper drying could be easily effected for optimum popping expansion. Planting should be done preferably between 1–15 August.

CHEMICAL CONTROL

Weed is one of the pests that reduce the yield of a maize farm. Weeds are unwanted crops that grow sporadically with the sown crop. They are always hardy and difficult to control; most times, farmers often use pre-emergence herbicide after planting to keep the weeds at bay for about 3 months. Then the maize can outwit the weeds. When weeds invade a maize farm, the maize crops become less vigorous and several disturbance sign are seen on the crop. Chemical compounds used to control weeds are called herbicides. Herbicides must be applied immediately after planting. They help prevent the weed seeds from germinating thus, eliminating the cost of weeding and keeping the farm free from weed for a reasonable period before harvesting. Weeding takes between 21 to 32% of the total time devoted to maize farming in Nigeria. Moreover, different herbicides are recommended and for maize and maize based crop mixtures, however unavailability, cost and knowledge of handling and environmental effects are drawbacks to its use.

FERTILIZER REQUIMENT

Increase in fertility level has played a key role in the increase of maize yields in Nigeria, and the dominant plant nutrient responsible for this increase has been nitrogen, which is a major nutrient needed in large quantity for high yields in maize production. Many field experiments have shown responses in grain yield of maize to application of nitrogen fertilizer. But the magnitude of response to applied nitrogen varies across experiments due to confounding influences of soil nitrogen supply from non-fertilizer sources, weather variation, variety and cropping practices. Consequently, recommendations of nitrogen management are site and season specific.

HARVESTING

As most of Maize in Nigeria is rain-fed, early maize is sown in the North by May/June and March/April in the South for Early maturing Seed variety while Late Maturing Maize variety is sown by July/August. Due to erratic rainfall caused by climate change, farmers are usually encouraged to plant at the onset of rain. Maize matures very fast, within 3–4 months of planting, the crop is ready for harvest, depending on which stage you want to harvest your crop but then harvesting of early maize is done by May and late Maize is harvested by October.

DROUGHT

Maize grown in Nigeria and many other countries in Sub- Sahara Africa are usually rain-fed. Rainfall, and to a lesser extent, temperature are the most important climatic factors that determine crops' growth and timing of agronomic practices in different ecological zones of Nigeria. Although, agricultural drought occurs when the levels of precipitation are sufficiently low to cause serious decrease in crop yield through its effects on the physiological process whereas, maize is essentially sensitive to moisture stress around the time of tasselling and cob formation. It also needs optimum moisture condition at the time of planting. Drought may occur at any stage of maize growth but when it coincides with flowering and grain filling periods yield loss could be between 40 to 90%.

Drought stress at flowering disrupts the synchrony between pollen shed and silking, which is the major cause of yield reduction. In spite of great potential of Nigeria in maize production, frequent occurrence of drought occasioned by erratic rainfall distribution and/or cessation of rain during the growing season is the greatest hindrance to increased production, and this is more serious in the northern parts of Nigeria

CONCLUSION

Like several other agricultural businesses that have great potentials for both scale and profitability, starting a maize farming business in Nigeria or across Africa is a great agricultural business to start up if executed at the right scale with high yield maize seeds. This will ensure you produce a substantial volume that can be sold profitably, both locally and for exports.

