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## CORN

Corn, *Zea mays*, is a member of the grass family Gramineae. As in all grasses, most of the plant body is leaf tissue. It has unisexual flowers. Male (staminate) flowers are located at the apical tip of the main stem in the tassel. Female (pistillate) flowers are found in one to several compact ears, located on the end of short branches near the middle of the stem. Each functional ear floret has a single ovary which terminate in an elongated style or silk. Corn produces three kind of vegetative leaves: foliar, husk and prophyllactic.

Corn can be planted either at the onset or toward the end of the wet season. In general, the dry season crop gives higher yields and better quality than the wet season crop. For the dry season planting, the best time to plant is from October to November while for the wet season, the recommended months is from May to June.



### SITE SELECTION AND LAND PREPARATION

Proper land preparation is a prerequisite to attain good seed emergence and effective weed control.

Plow and harrow the field twice to attain good tilth. Set the furrows at a distance of 75 centimeters running in the east-west directions. Furrows should be laid out at about 15-18 centimeters deep.



## PLANTING

Planting of seeds is usually done manually at a distance of 25 or 28 centimeters between hills and 75 centimeters between furrows at the rate of 1 to 2 seeds/hill. Ten days after planting, thinning out will be done leaving only one healthy plant per hill. Corn seeds should be planted 1 ½ to 2 inches deep. To maximize yield, the seed should be sown at a uniform depth and be evenly spaced.

## FERTILIZER APPLICATION

Soil analysis is the best guide to determine the fertilizer requirement for corn production. In case soil analysis is not available, the general recommendation for corn is 120-60-90 NPK/ha. First application of fertilizer will be done before planting the seed. Apply 3 bags 14-14-14, 1 bag urea and 5 kgs Zinc sulfate/ha then cover with thin layer (3 centimeters) of soil. Second fertilizer application will be done at 30 days after planting using 5 bags of 14-14-14, 2 bags of urea/ha and 1 bag 0-0-60.

## IRRIGATION

Water is important in all stages of corn growth and development. When sowing is done in the dry season, supplemental irrigation is necessary. The first irrigation is done just before or after sowing to ensure good, faster and uniform seed germination. The second irrigation may done 10 days after emergence. Succeeding irrigation should be done weekly or whenever the crop shows wilting and other signs of drought stress. Furrow irrigation is recommended for corn.



During rainy season, excess water may be removed by constructing drainage canals.

## WEEDING AND CULTIVATION

First weeding and cultivation is usually done two weeks after planting, followed by 30 days after planting. Hill-up immediately to provide favorable soil condition for faster growth and development. If weed population is severe, do manual spot weeding 45 days after planting.



## INSECT PESTS AND DISEASE CONTROL

Disease	Control
Anthracnose	Crop rotation, use of resistant varieties and fungicide application.
Corn Leaf Blight	Choose varieties with good resistance, crop rotation, and use of appropriate fungicides.
Gray Leaf spot	Use resistant varieties and crop rotation.
Maize Dwarf Mosaic	Use resistant varieties, plant early and consider insecticide sprays to control aphids which are vector of the disease
Corn Rust	Use resistant varieties and fungicide sprays.
Downy Mildew	Provide adequate drainage or avoid planting in low wet areas. Rotate the crop

Insect	Control
Aphids	Spraying of appropriate insecticides.
Corn Thrips	Avoid water stress, crop rotation and insecticide spraying.
Asiatic Corn Borer	Avoid late planting, crop rotation, spray with appropriate insecticides
Army Worms	Egg masses and larvae should be collected and crushed. Spraying of insecticide (Cyphermetrin)

## HARVESTING

Proper timing of harvesting is very important as it affects the quantity and quality of corn. It is necessary to determine the expected crop maturity so that harvesting can be done at the right time. Harvest the ears 65-75 days after planting depending on the variety.

For more information, write, visit, or call:  
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