

Corn Production Tips For The Mississippi Delta

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Mid South corn growers have improved their production practices over the past 10 years to a point that they are consistently achieving yields that rival and in many cases surpass those of the Corn Belt states. There are several points worth reviewing that will assist you in continuing to produce large yields of high quality corn in the lower Mississippi River Valley. Once you have decided to grow corn the next step is hybrid selection. There are a number of sources of information to help you but, two things to keep in mind: 1). All seed companies that sell in your area have adapted hybrids. If they don't they won't be in business long. 2). Every state conducts corn hybrid yield trials through the state Agriculture Experiment Station and that information is available, usually at no cost, through your local University Extension Service Office. A sizeable number of genetically enhanced hybrids are now available, i.e. Bt's, Roundup Ready, Liberty Link and such, which yield well but are more expensive and must be managed well to achieve the desired benefits.

Research by the USDA-ARS at Stoneville, MS has shown that a number of corn hybrids that mature between 110-115 days after planting produce very high yields in the Mississippi Delta. Later maturing corns, 116-120 days, for a long time were the only type recommended for the lower Mississippi River Valley strictly because of its long growing season. But splitting your acreage between earlier maturing types with full-season hybrids can spread out your harvests and avoid some of the problems associated with your crop maturing all at once.

Planting dates with corn have become very early, not just in the Mid South, but for the entire USA. Recent research out of Wisconsin has determined that basically corn is being planted about 2 weeks earlier now than it was 30 years ago. For the Mid South, recently published research by the USDA-ARS at Stoneville, MS has determined the ideal date for corn planting in the Mississippi Delta is still around April 15-25. However, most of the corn in this region is being planted much earlier. Nearly 75% of this year's crop was planted by April 5, 2007. Planting as early as March 15, has been shown to have little or no negative affect on yield. However, after April 30, yields plummet. Late planting appears to result in a reduction of about 1 bushel per day for each day of delay after April 30.

Fertility is naturally an important management decision. Nitrogen is vital to a good yield. Contrary to some state recommendations on nitrogen, splitting the application does not appear necessary to achieve the desired yield goal. This is based on several experiments completed by the USDA-ARS at Stoneville, MS. Reductions in risks of nitrogen loss due to leaching or denitrification were the primary reasons for splitting

the application. But, current diesel costs make it necessary to hold down the number of trips you make across the field and a missed side-dressing of nitrogen due to wet weather or lack of time to make the application will result in a substantial yield loss.

Weed control has been revolutionized with the advent of Roundup Ready and Liberty Link hybrids. Despite the fact these herbicides kill a number of troublesome weeds that some of the older pre-emergence compounds would miss, it is still advisable to make an application of these pre-emergence herbicides to give residual control that Roundup or Liberty cannot deliver. Also, avoid getting hooked on Roundup as your only herbicide. In some fields that have had a succession of Roundup ready crops grown on the land, Roundup resistant weed biotypes have begun to appear.

Bt hybrids have been a big help in reducing losses from Southwestern cornborer and corn earworm. However, growers must follow guidelines regarding the acreage of Bt crops grown per farm, especially if Bt cotton is including as part of the cropping program. Also, several southern states are reporting that the benefit of Bt hybrids comes primarily with later planted corn crops. Little benefit from Bt genetics appears to be realized with early planted corn.

The ability to irrigate most of our corn is one of the big advantages we have in the Mississippi River Valley over a lot of the Midwestern states. Granted there is a lot of irrigated corn grown in the Corn Belt, but there is a sizable acreage that cannot be irrigated because of the lack of a water source and/or the topography. Corn is a thirsty plant. It takes about 750,000 to 1,000,000 gallons of water per acre to grow 175 bushels of grain. Irrigation has become expensive because of fuel prices but it can nearly double grain yields over non-irrigated crops grown on similar soils.

Harvesting is as important an operation in corn production as any in the system. Picking needs to be done in a timely manner to reduce potential losses to weather, lodging, dropped ears or insects and maximize profits. Virtually all corn produced in the lower Mississippi River Valley is field dried. In the Mid South grain driers are few and far between and will likely remain that way due to current energy prices. Our corn matures during dry hot weather and can reach 15.5% moisture rather quick. It is important to monitor grain in the field closely and begin picking at 15.5% to reduce losses due to kernel breakage and a lack of moisture. Combines need to be properly set and monitored to avoid losses due to over-throw. Grain that isn't marketed immediately is being stored on farm. A sizeable amount of this year's production went into temporary storage using plastic bags. If grain is stored this way it is important to monitor it daily for tears and leaks. Metal bins will need to be thoroughly cleaned before storing next year's crop. Δ