



Last Recommended Planting Date for Sunflower in the Texas High Plains

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How late can sunflowers be planted in the Texas South Plains and the Texas Panhandle with minimal risk for maturing a good yielding, high quality crop? Cotton and other crop hail-out as well as double-cropping possibilities raise this question. A last recommended planting date will reflect several agronomic and climatological factors, but growers should also note that crop insurance cut-off dates will occur earlier in the season.

Using thirty-year climate data, county elevation, hybrid maturity, on-farm observations, and previous recommendations, here are some practical suggestions for the last recommended planting date in West Texas. The objective for growers is a “safe” recommended last planting date with a good expectation of successful production. In general sunflower yield potential and oil content are expected to decline somewhat from April to May to June then mid July plantings. Occasionally we have a much earlier than normal fall (frost, freeze), but that could be minor compared to having significant cool weather where heat unit accumulation diminishes.

Thus to plant too late means a grower risks not fully maturing a crop. Also, particularly with oilseed sunflowers, oil content is the last process that occurs in maturing the sunflower seed. Though respectable yield may still be achieved with later plantings, early cool weather can curtail oil accumulation thus a farmer might face loss of premium for oil contents over 40% (or a penalty if oil content is less than 40%).

Sunflower maturation in cool weather. Sunflowers can mature under cooler conditions than most other crops. For example, grain fill in grain sorghum would be more subject to limitations and result in lower yield and test weight than sunflower. North Dakota State University calculates heat unit accumulation (growing degree-days) for sunflower with a base temperature of 44° F, but Colorado State University uses a more conservative 50° F.

Nevertheless, sunflower yield potential is affected by late plantings. Trials in eastern Colorado indicate that mid-season hybrids planted the first week of July can adequately mature in a normal season, however, later planted sunflowers do yield less than earlier planted. Later plantings can be effective under normal summer conditions if they become necessary in your operation as long as hybrid maturity is shortened.

Also, late maturing sunflowers take much more time to dry down (even if a desiccant is used) hence producers with substantial stalk boring insect infestations (stem weevil; soybean stem borer in sunflower) may risk more lodging of the crop. Finally, last recommended planting dates, as given below, reflect an assumption that growers understand the need to shorten hybrid sunflower maturity with later planting dates.

Are there exceptions? Of course I know of individual farmers who have achieved good yields with late planting dates. For example, in Moore Co. one experienced grower has noted he feels little hesitation planting up to July 15th (10 days after that county's suggested last recommended planting date). And he has made some good yields. But there is a risk and in spite of lots of experience you will get caught in some years with disappointing crop performance and lost economic return. A late planting date is not the way to manage risk! Don't plant a sunflower crop on July 15 when you could have planted it 10 days earlier if planting conditions were favorable. Just five days of heat unit accumulation due to planting five days sooner in early July would require at least twelve days in early October to equal the same heat unit accumulation.

Also, keep in mind that the later in the season we get, and the more humidity and cool temperatures we have we increase our chances of having some late-season disease development. Sunflower diseases that can potentially limit West Texas sunflower production are fungal. Fungi in general prefer cooler, moist conditions for growth.

Last recommended planting dates for sunflower in West Texas counties:

July 1—Dallam, Hartley.

July 5—Sherman, Hansford, Ochiltree, Moore, Hutchinson, Roberts, Oldham, Potter, Carson, Deaf Smith, Randall, Parmer, Castro, Bailey, Cochran.

July 10—Lipscomb, Hemphill, Gray, Wheeler, Armstrong, Donley, Swisher, Briscoe, Lamb, Hale, Floyd, Hockley, Lubbock, Crosby, Yoakum, Terry.

July 15—Collingsworth, Hall, Childress, Motley, Dickens, Lynn, Garza, Kent, Gaines, Dawson, Borden, Scurry, Fisher, Andrews, Martin, Howard, Mitchell, Nolan.

These suggestions should encourage the farmer to not plant so late to lose significant yield potential and economic value, but to also reduce risk of late-season crop injury to a minimal level. As our experience increases with Texas sunflower these dates will be re-evaluated.

For additional sunflower resources visit the Texas A&M—Lubbock website at <http://lubbock.tamu.edu/sunflower>