



Preliminary Estimates of the Impact Adverse Weather Conditions on the Louisiana Agricultural Sector

Developed by Kurt M. Guidry

In conjunction with AgCenter ANR Agents and Commodity Specialists

Introduction

For many producers, the 2022 agricultural production year will likely go down as one of the most challenging years ever. Already facing historic input costs and compromised profit margins, much of the initial outlook for 2022 was dependent on a successful production year. Unfortunately, weather conditions throughout much of the growing and harvest season created significant challenges. A drier-than-normal Fall of 2021 started the 2022 growing season with little soil moisture reserves. And while rains in early in 2022 allowed for sufficient soil moisture to start the planting and growing season for most commodities, total rainfall in many areas was not sufficient to rebuild soil moisture reserves. As such, there was a greater dependence on a continuation of rainfall to enable normal crop development. Unfortunately, for many areas of the state, those rains didn't materialize as a prolonged period of extremely hot and dry conditions developed. This created significant issues for most agricultural commodities. Even for those irrigated commodities, the excessive heat and the inability for irrigation systems to meet the demand caused by the drought conditions was believed to negatively affect yield potential. Then, to add to the challenges of 2022, those drought conditions turned to a period of persistent and excessive rainfall from late July through early September, a critical harvest period for many commodities. More than 18 inches of rainfall fell within a 7-to-10-day period in some areas of the state creating significant harvest delays and harvest inefficiencies. Even in those areas in which rainfall totals were much more manageable, the persistent rainfall and the number of consecutive rainy days were enough to complicate and delay harvest and create significant quality issues.

Based on the cumulative effects of drought conditions early in the growing year and persistent and excessively wet conditions during critical harvest periods, the LSU AgCenter developed a damage assessment survey that was sent to Agriculture and Natural Resource (ANR) agents throughout the state. Given an inability to be able to effectively and accurately differentiate impacts between those caused by the early drought conditions and those caused by the later wet conditions, the damage assessment implemented only tried to capture the cumulative impacts of both time periods. The damage assessment survey was focused on collecting information about acres impacted, expected yield reduction, expected quality impacts, and potential increased production costs. Data compiled through the completed surveys was combined with secondary data along with information from industry personnel to develop estimates of the economic impacts to the Louisiana agricultural sector.

Methodology

A preliminary, informal assessment was conducted with LSU AgCenter Production Specialists for all major agricultural commodities in the state. The information provided by this preliminary assessment provided an overview of the nature and magnitude of the impacts facing the agricultural industry. The information received from this initial assessment was then used to develop a damage assessment survey that was designed to collect the information needed to be able to quantify those issues and challenges identified. The finalized damage assessment survey was sent to LSU AgCenter ANR Agents throughout the state. Parish-based ANR Agents were asked to use their contacts with producers and industry personnel to develop the data and information needed to complete the

survey for their respective parishes. Data provided by ANR Agents through the damage assessment survey was supplemented with information provided by LSU AgCenter Production Specialists and then combined with data from secondary sources and industry personnel to develop estimates of the economic impacts of the adverse weather conditions to the Louisiana agricultural industry.

Each disaster event typically has a unique set of issues and challenges that it creates for the agricultural industry. For this event, while there were several potential issues identified, most of the impact was believed to focus on reduced yields from early drought conditions and additional yield impacts along with significant quality impacts from persistent and excessive rainfall during critical harvest periods. While these yield and quality impacts were viewed across all commodities, there were some commodity specific issues to consider. For rice, reduced ratoon acres were identified due to excessively wet conditions during the first crop harvest. For sugarcane, the need and increased potential for having to replanted recently planted sugarcane was identified. Finally, because of drought conditions, the impact on grazing and forage availability was identified.

The impact of reduced yields and production included both those acres that were reported as being abandoned plus additional acres that were reported as having partial yield loss. For the impact of abandoned acres, survey data on the number of acres abandoned and expected yields under normal or typical weather conditions was combined with an expected selling price to estimate the amount of revenue loss from these acres. For impacted acres with partial yield reductions, survey data on the number of acres with yield and/or quality impacts, expected yields under normal or typical weather conditions, and the average expected percent yield loss across those impacted acres were combined with an expected selling price to estimate the amount of revenue loss from these acres. The expected selling price for each commodity was developed based on available market information on the average selling prices experienced during late July through early September.

For rice, in addition to the acres abandoned and the acres with partial yield loss, another contributor to the total amount of revenue lost was prevented ratoon acres. Excessive and persistent rainfall caused excessive damage to rice fields during the harvest of the first crop and created an inability to conduct normal stubble management practices after harvest. Both issues reduced the number of rice acres that would normally have been managed for a ratoon crop. For those prevented ratoon acres, the total estimated revenue loss was set equal to the projected net returns that would have been expected to have been generated from those acres. Net returns were calculated as estimated gross revenue minus estimated production and harvest costs. Survey data on the expected first crop yields under normal weather conditions were adjusted down to 30 percent of those levels and used as the projection for the ratoon yield expected under normal conditions. Expected selling prices were combined with the projected ratoon yields to develop an estimate of gross revenue. Estimated production and harvest costs were taken directly from the 2022 LSU AgCenter Rice Enterprise Budgets.

The impact of reduced quality was estimated by applying average quality price discounts on the portion of harvested production reported to have quality impacts. Survey data on the number of acres with yield and/or quality impacts, expected yields under normal conditions, estimated yield loss, and the percentages of harvested production with moderate and significant damage was combined with average quality price discounts to determine estimates of revenue losses associated with reduced quality. The amount of harvested production was estimated by multiplying the number of acres impacted times an adjusted expected yield value. The adjusted expected yield value was simply the reported expected yield under normal conditions reduced by the estimated percentage yield loss. The amount of harvested production that had moderate quality damage was determined by applying the reported percentage of production with moderate damage to the estimate of harvested production. Similarly, the amount of harvested production that had significant quality damage was determined by applying the reported percentage of production with significant damage to the estimate of harvested production.

Average quality price discounts were developed for both moderate damage and significant damage by surveying available market data and market industry personnel on typical price discount experienced during the July to September period. These average price discounts, however, were only valid for commodity that was accepted by buyer. These average price discounts did not reflect the large discount associated with having to sell a commodity for salvage value. Primarily for soybeans, there were several reports of soybeans being rejected by buyers and being forced to be sold for salvage value. The difference between reported salvage values and the expected, normal selling price for soybeans was roughly \$10.00 per bushel and was significantly higher than the average quality price discounts being seen. To reflect the larger impact of having to sell commodity at salvage value, a portion of the estimated harvested production with significant damage was assumed to be sold for salvage. The difference between the salvage value and the expected selling price served as the basis for the economic impact. The portion assumed to be sold for salvage was based on discussion and interactions with industry personnel.

Because of the unique nature of sweet potatoes, impacts related to reduced quality were developed differently from the approach described above for other commodities. Unlike other commodities which have a tiered price discount schedule depending on the amount of damage, the impact of reduced quality for sweet potatoes is much more an acceptable or unacceptable scenario. Buyers either accept or reject sweet potatoes if they are within or outside their acceptable damage specifications. In addition, the impact of reduced quality can look slightly different if the potatoes are to be sold in the processing market or in the fresh market. So, the first step was to identify the percentage of reported acres impacted that were grown for fresh market and the percentage that were grown for processing market. Those percentages were developed based on experience and expertise of LSU AgCenter Sweet Potato Production Specialists. From there the amount of harvested production for each market was determined by multiplying the number of acres for each market by an adjusted expected yield, which is the same process as described for other commodities. For the harvested production for the processing market, the quality impact was set estimating the portion of harvested production that was assumed to be rejected by the processor. The percentage rejected was set based on information through LSU AgCenter Sweet Potato Production Specialist communications with producers. For the sweet potatoes for the fresh market, the impact on quality is viewed as lowering the pack out level. The pack out level refers to the percentage of potatoes harvested that ultimately meet all requirements for the fresh market. Conversations with industry personnel indicated that pack out levels were reduced from normal levels as increased quality losses were being experienced in storage. As such, the impact of quality damage for fresh market potatoes was estimated at the difference between the revenue that would have been expected to be generated at normal pack out levels and the revenue that would be expected to be generated at the lower pack out levels. The revenue expected to be generated under each pack out scenario was estimated as the amount of harvested production times the appropriate pack out percentage times the expected fresh market selling price. The pack out levels under both scenario (normal and reduced) was set based on information provided by the Production Specialist obtained through communication with producers.

In addition to loss revenue, there were also areas of increased production costs associated with the adverse conditions. The primary increase in production costs were related to increased harvest costs. Harvesting commodities under extremely wet conditions and with lodged commodities can greatly increase harvest time along with equipment repair and maintenance costs. To estimate the potential impact of those increased harvest costs, survey data on the number of acres harvested under adverse conditions was combined with an estimate of increased per acre harvest costs. Estimates of harvest costs and harvest performance rates under normal harvest conditions were taken from 2022 LSU AgCenter Enterprise budgets. The performance rates provide an estimate of the number hours required to harvest one acre of the commodity. The per acre costs estimates were then converted to a per hour estimate based on those established performance rates. The performance rates were then adjusted by a factor to reflect the reduced efficiency and increased time requirements associated with harvesting under adverse conditions. The adjusted performance rates were then applied to the per hour cost estimates developed to generate estimates of adjusted per acre costs estimates. The difference between the estimated harvest

costs under normal conditions and the adjusted per acre costs was set as the increased costs associated with harvesting under adverse conditions. Again, this cost would be reflective of increased fuel, labor, and repair and maintenance associated with slower harvest rates.

Another area of increased production costs was isolated to the sugarcane industry. The majority of sugarcane is typically planted during the months of August and September. This just happened to coincide with the persistent and excessively wet period. Having to plant in wet conditions and then being followed by what has now turned into a prolonged period of excessively dry conditions has caused some of those acres to be replanted and threatens an even larger of acres to be replanted. To estimate the increased costs associated with replanting, survey data on the number of acres impacted was combined with an estimated replant cost. The estimated replant cost was based on the LSU AgCenter publication “Allocation of Sugarcane Planting Costs in 2023 for Sugarcane Planted in 2022”. The publication provides estimates of the cost of planting sugarcane in 2022. These estimates were adjusted to reflect only those activities that would be needed to effectively replant impacted acres.

The final area of increased production cost was specific for the livestock sector. Reduced forage availability and grazing was noted due to the dry and hot conditions earlier in the year. When forage availability is reduced, producers often have to increase the amount of supplemental feed they must provide to maintain the livestock, which increases their total production costs. Estimates for the increased production costs associated with loss grazing days were developed based on a hay-equivalent basis. Assumptions regarding typical stocking rates were used to determine the number of animals impacted pastures would typically support. Estimates on the amount for forage those number of animals would typically consume were then estimated. The amount and value of hay that would be needed to replace that loss forage was then determined and set as the estimate of the increased production associated with loss grazing days.

Results

Table 1 provides a summary of the preliminary estimated economic impacts to agriculture from the adverse weather conditions in 2022. Preliminary estimates place the total economic impact at \$494.1 million. The vast majority of the total impact (\$469 million) was attributable to lost revenue due to reduced yield and quality associated with major agronomic crops in the state. Increased production costs were estimated at \$1.2 million and included increased harvest costs and replanting costs associated with the sugarcane industry. The impact of reduced hay production is estimated at \$15.5 million and reflects a combination of the lost revenue for producers who produce hay for resale and the increased production cost for producers who produce hay for their own use and would now have to replace hay not produced with purchased hay. The impact of reduced grazing is estimated at \$8.3 million and reflects the amount of hay that would need to be purchased to replace lost grazing.

Table 1. Total Estimated Economic Impacts

Item	Value
Loss Crop Revenue Due to Yield and Quality Impacts	\$468,968,100
Increased Cost of Production	\$1,266,902
Impact of Reduced Hay Production	\$15,487,865
Impact of Reduced Grazing	\$8,332,181
Total Estimated Economic Impact	\$494,055,048

Table 2. provides the acres impacted and estimates of percentage yield and quality damage for all impacted commodities. While the extent of the impact differed significantly by commodity, most of Louisiana’s major agronomic commodities were impacted by the adverse weather conditions in 2020. The only commodity that was

not reported as having significant damage was sugarcane. While sugarcane likely struggled with the dry and hot conditions earlier in the season like the rest of the commodities, the rains from late July through the beginning of September, that created significant issues for other commodities, allowed for strong sugarcane growth and helped to limit any yield impacts.

Table 2. Estimated Acres Impacted, Yield Losses, and Quality Impacts by Commodity

Commodity	Estimated Total Number of Acres	Estimated Acres Abandoned	Estimated Acres Harvested with Yield and/or Quality Impacts	Percent of Total Acres Abandoned or Impacted	Weighted Average Estimate of Yield Loss	Weighted Average Estimate of Percent of Harvested Production with Minor Damage	Weighted Average Estimate of Percent of Harvested Production with Significant Damage
Corn	436,591	2,060	256,448	59%	19%	62%	5%
Cotton	187,032	100	141,643	76%	25%	61%	35%
Rice	415,483	130	79,360	19%	17%	34%	9%
Soybeans	1,248,713	30,758	820,415	68%	24%	37%	59%
Sorghum	21,865	1,648	9,356	50%	49%	4%	51%
Sugarcane	512,310	0	0	0%	0%	0%	0%
Sweet Potatoes	6,892	150	6,742	100%	49%	N/A	N/A
Hay	427,802	0	184,868	43%	28%	N/A	N/A
Pasture*	2,109,735	0	298,277	14%	N/A	N/A	N/A

* Pasture acres impacted are those reported to have loss grazing days. The weighted average number of loss grazing days was 35.9 days and the weighted average stocking rate was 1.9 acres per mature cow.

In terms of total acres impacted, soybeans had by far the highest level of acres impacted. More than 30,000 acres of soybeans were reported to be abandoned with an additional 820,000 acres with yield and/or quality impacts. This represented roughly 68 percent of total soybean acres. While fewer total acres, sweet potatoes were reported to have 100 percent of the acres impacted and roughly 3 percent of total acres were reported to be abandoned. Additional acres of sweet potatoes could be abandoned as harvest continues to progress. Cotton, corn, and grain sorghum also had large percentages of their total acres impacted with 76 percent of cotton, 59 percent of corn, and 50 percent of grain sorghum acres impacted. Grain sorghum also had nearly 8 percent of its total acres reported as being abandoned. In terms of yield loss, grain sorghum and sweet potatoes had the largest average yield loss estimates of 49 and 47 percent, respectively. Hay, soybeans, and cotton all had estimated average yield loss of more than 20 percent. Finally, in terms of quality losses, soybeans and grain sorghum had the highest percentage of harvested production that had significant damage with 59 and 51 percent, respectively.

Table 3 provides estimates of acres reported to have adverse harvest conditions along with prevented rice ratoon acres and replanted sugarcane acres. The estimates of acres with adverse harvest conditions represents higher harvest costs and reduced harvest efficiencies for the producer. With August being the major harvest period for much of the rice crop in Louisiana, it follows that rice had the largest number of acres reported being harvested under adverse conditions.

Table 3. Estimated Acres Harvested, Prevented Ratoon Acres and Replanted Sugarcane Acres

Commodity	Estimated total Number of Acres	Estimated Acres Harvested Under Adverse Conditions	Estimated Prevented Rice Ratoon Acres	Estimated Replanted Sugarcane Acres
Corn	436,591	13,990	N/A	N/A
Cotton	187,032	700	N/A	N/A
Rice	415,483	125,502	29,813	N/A
Soybeans	1,248,713	89,317	N/A	N/A
Sorghum	21,865	3,700	N/A	N/A
Sugarcane	512,310	0	N/A	425
Sweet Potatoes	6,892	175	N/A	N/A

Because of those unfavorable conditions during the rice harvest, nearly 30,000 acres of ratoon rice was reported as being prevented. These are acres that producers had planned to put into ratoon production but didn't because of either excessive field damage during the primary harvest and/or an inability to conduct needed stubble management practices on the fields. At this point, only a small number of sugarcane acres are reported as being replanted. However, given the dry conditions that have persisted since the beginning of September, there are an additional 10,000 to 15,000 acres that are at risk.

Table 4 provides the estimated economic impacts by commodity. As mentioned previously, most of the economic impact associated with a commodity was attributable to yield and quality losses. Soybeans were significantly impacted by both yield and quality damage and had total estimated economic impacts of \$315.8 million, which represents a nearly 60 percent reduction from its 5-year average farm gate value. While corn had the next largest estimated impact at \$69.3, it only represented about a 20 percent reduction from its 5-year farm gate value. Estimated economic impacts for grain sorghum and sweet potatoes, while lower than other commodities, represented a 50 and 41 percent reduction from their 5-year average farm gate values, respectively. For the livestock sector, the hot and dry conditions that persisted through much of the summer greatly impacted hay production and forage availability. And while the rains helped to improve those situations, the persistent rains delayed hay harvest and the cumulative effects had significant economic impacts. Hay production losses were estimated at roughly \$15.5 million while reduced grazing and forage availability was estimated to have a \$8.3 million impact.

Table 4. Estimated Economic Impact by Commodity

Commodity	Estimated Impact Associated w/Yield Loss	Estimated Impact Associated w/Quality Loss	Estimated Impact Associated w/Prevented Rice Ratoon	Estimated Impact Associated w/Harvesting Under Adverse Conditions	Estimated Impact Associated w/Replanting Sugarcane	Estimated Impact Associated w/Lost Grazing Days	Total Estimated Impact
Corn	\$60,052,235	\$9,207,576	N/A	\$60,884	N/A	N/A	\$69,320,695
Cotton	\$35,354,741	\$7,668,058	N/A	\$22,271	N/A	N/A	\$43,045,069
Rice	\$15,648,943	\$700,068	\$2,776,818	\$530,599	N/A	N/A	\$19,656,427
Soybeans	\$190,225,805	\$125,172,921	N/A	\$416,932	N/A	N/A	\$315,815,657
Sorghum	\$2,559,220	\$84,945	N/A	\$16,687	N/A	N/A	\$2,660,852
Sugarcane	\$0	\$0	N/A	\$0	\$217,400	N/A	\$217,400
Sweet Potatoes	\$17,291,888	\$2,224,884	N/A	\$2,128	N/A	N/A	\$19,518,900
Hay	\$15,487,865	N/A	N/A	N/A	N/A	N/A	\$15,487,865
Pasture	N/A	N/A	N/A	N/A	N/A	\$8,332,181	\$8,332,181
Totals	\$336,620,696	\$145,058,451	\$2,776,818	\$1,049,502	\$217,400	\$8,332,181	\$494,055,048

Concluding Remarks

The estimates provided in this report provide a preliminary estimate of the economic impacts associated with the cumulative effects of hot and dry conditions followed by persistent and excessive rainfall to the Louisiana agricultural sector. For most of the commodities reported, harvest is complete, and the full picture of the impacts has materialized. However, for others, a significant portion of the crop either has just recently been harvested or is yet to be harvested. As such, for those commodities, additional information may become available to slightly alter the current picture.

While the dry conditions that have persisted since the middle of September has helped harvest conditions improve and likely limited some of the potential impacts for the latter harvested crops, it has also now begun to create some additional concerns. As mentioned, sugarcane planted under wet conditions in August and September are not at risk due to the drought conditions. While it remains to be seen just how many of those acres will need to be replanted or plowed out, the general consensus is that 10,000 to 15,000 acres could be at risk. Some of those acres could be replanted if sufficient moisture materializes and producers can manage replanting in conjunction with harvesting the 2022 crop. For other, the sugarcane may simply be plowed out and allowed to lay fallow until planting resumes in August and September 2023. If plowed out and put into fallow, producers will be delaying the ability to generate revenue from those acres for a year.

The other area in which the current dry conditions being seen could have negative impacts is for fall planted crops like wheat and ryegrass for livestock producers. A continuation of these dry conditions could result in acres being prevented from being planted. For wheat producers, prevented plantings would result in lost revenue. For livestock producers, the inability to plant ryegrass (or some other winter forage) would likely increase their winter-feeding costs and only put additional stress on their reduced forage and hay production struggles in 2022.

The remainder of this report highlight issues with each of the commodities identified in this report.

Rice – the hot and dry conditions early in the growing season put considerable demands on irrigation systems. In some cases, keeping adequate levels of water on rice was compromised. That, along with high nighttime temperatures was believed to have negative yield impacts. Then, the persistent and excessive rainfall during the height of the harvest season in South Louisiana caused harvest delays and harvest challenges. Quality impacts were noted due to harvest delays and wet field conditions and lodged rice was noted as both impacting yields as well as harvest efficiency and costs. Finally, due to the damage caused to stubble by having to harvest in wet conditions and given the inability to properly manage stubble, there were acres of ratoon prevented from being put into production. Additional acres of ratoon rice could be abandoned if yield potential proves to be uneconomical for harvest.

Corn – like most other commodities, the dry and excessively hot conditions through much of the growing season resulted in significant impacts, particularly to dryland corn. But even in irrigated corn, yields were reported as being reduced 10 to 15 percent from normal levels. And while a higher percentage of corn was likely harvested prior to the heavier rains in August, there was still some reported harvest delays and harvest issues resulting from the wet conditions that impacted quality. Although while not directly included in this report, there were some issues with aflatoxin in corn given the weather conditions.

Cotton - again, for cotton, the hot and dry conditions early in the growing season was reported to have significant yield impacts, particularly for dryland cotton. But as with corn, even irrigated cotton yields were compromised given the early season growing conditions. While cotton harvest was not in full swing when the majority of the rains came through the state, there was considerable reports of impacted yield from the rains and quality impacts. With cotton harvest only being about at roughly 50 percent at the time of the survey, there is some potential for additional impacts to materialize. While the drier conditions that have persisted for much of the last half of September and early part of October, may have limited additional impacts, the adverse conditions earlier in the year may paint a clearer picture on the full impacts once harvest is fully completed.

Soybeans - while the hot and dry conditions in the early part of the growing season was believed to have negative yield impacts on soybeans, it was primarily the persistent and excessive rains in the later half of summer that is believed to have caused the biggest impact in terms of field abandonment, yield impacts, and particularly quality impacts. While not addressed in these estimates, one additional factor that has materialized is penalties to producers for not fulfilling contracts. In many cases, producers contracted a portion of their expected production in 2022. Unfortunately, either due to yield impacts or quality impacts making the soybeans only marketable for salvage, producers were not able to fully fill their contracted levels. In those cases, producers have been reported as being penalized from \$0.50 to as much as \$2.00 per bushel for every bushel they were short of fulfilling their contract.

Sorghum – like the other commodities, sorghum was negatively impacted early by the dry and excessively hot conditions and then by harvest issues and delays caused by the persistent and excessive rains. With sorghum harvest being a little later than corn, the yield and particularly quality impacts were reported as being significantly higher than for corn.

Sugarcane – despite the sugarcane crop being impacted by the early hot and dry conditions, the rainfall that fell in late July through early September likely helped that crop recover to limit overall yield impacts. With sugarcane not typically harvested until the later part of September, the rains were thought to generally be beneficial to growing sugarcane. The largest impact to sugarcane is the impact on planted acres. The sugarcane planting season typically starts in August and goes through September and October. For those acres that were able to be planted, the excessive rainfall put some of those acres at risk. However, likely the biggest threat to sugarcane acres planted has been the excessively dry conditions that have persisted since September. It is believed that 10,000 to 15,000 acres could be at risk. Those acres could be replanted in 2022 assuming adequate soil moisture materializes and the time required to replant can be scheduled along with producers harvesting the 2022 crop. In that situation, producers would face the increased costs associated with replanting. For other acres, the crop planted in 2022 may simply be plowed out and wait to be planted during the 2023 planting period. By delaying replanting those acres until 2023, the producers would be delaying revenue from those acres for a year.

Sweet Potatoes – while the hot and dry conditions earlier in the year likely reduced overall yield and potato size and shape, the bigger impact on the sweet potato crop was the persistent and excessive rains that followed. The longer potatoes are forced to stay in the field under wet conditions, the more potential for quality impacts and quality degradation. There have been reports of potatoes being rejected by the processor due to rot and other damage. Also, there have been reports of the percentage of potatoes acceptable to go into fresh markets (pack out percentages) have continued to drop as additional potatoes are harvested and placed into storage facilities. With less than 45 percent of the sweet potatoes being harvested at the time of this survey, the exact nature of the quality impact is not fully clear. Also, while the number of acres abandoned are relatively low at this time, there is additional potential for that number to climb as more potatoes are harvested and the full impact of the damage is realized. Finally, while not included in this report, there have been some concerns of seed availability for next year. With most producers keeping a portion of their production each year to be used as seed in the following year, the impacts from 2022 could create significant issues for producers both in terms of sourcing enough seed for their needs as well as driving up their costs of production.

Hay and Forage Production – the hot and excessively dry conditions in the early part of the production year was thought to have significant impacts on overall hay and forage production and limited hay harvest. While the rains helped to rejuvenate pastures and hay meadows, the delay caused by the persistent rainfall still likely limited the total number of hay cuttings. Also, overall hay quality was believed to be compromised as hay harvest was unable to be accomplished in a timely and recommended fashion. Also, while not included in this report, another impact on the dry and hot conditions was in terms of forced liquidation. In some instances, in which forage and grazing availability was significantly compromised, producers were forced to liquidate a portion of their herds to manage available forage. The market saw a sharp increase in the number of animals being marketed throughout the South which did put some downward pressure on prices. So, for those producers that did have to liquidate cattle, there were selling at lower prices than would have typically been expected.