

Vol. 26

No. 22

November 25, 2019

In Brief

- Harvest of the US peanut crop is quickly coming to a close. However, harvest in portions of the SW and in the S-C/Delta regions will continue for a while as farmers harvest between periodic weather systems.
- As of today, November 25, the USDA Federal-State Inspection Service (FSIS) reported 2,458,778 tons (2,230,566 MT) of farmerstock peanuts delivered to buying points across the US peanut belt (peanut tonnage provided by individual buying point and not certified by FSIS). This is 8.5% below the JLA estimate of US in-shell peanut production at 2,688,118 tons (2,438,620 MT). I expect that much of this tonnage gap will close by mid-December.
- We are seeing high levels of aflatoxin in the early portion of the 2019 SE crop that has been shelled to date. Currently, the percentage of shelled lots failing USDA program specifications (> 15ppb average) stood at 32% on November 19.
- The first report from Argentina is included in this issue of the JLA newsletter. Planting of the 2019/20 peanut crop has been delayed due to early season drought.
- Hectares planted to peanuts in Argentina is expected to be down 5% from last season. Foy

United States

US Crop Estimate

- I maintain my yield projection of 3886 lb/ac (4356 kg/ha) resulting in overall tonnage of 2,688,118 tons (2,438,620 MT) of in-shell peanuts harvested in the US (Table 1).
- We are concerned about aflatoxin contamination in the SE peanut crop due to drought conditions experienced much of the 2019 crop season. David addresses this in the SE report.

Table 1. JLA projected tons produced in the US, 2019

	Yield (lb/ac)		
	High	Likely	Low
Harv Ac	4158	3886	3615
High	(Tons)		
1,560,335	3,236,593	3,024,904	2,813,593
Likely			
1,383,333	2,876,190	2,688,118	2,500,463
Low			
1,167,883	2,431,660	2,272,546	2,113,669

Southeast Year-End Summary

Harvest and Production

- An early season drought in May forced many growers in the region to plant peanuts in June. This is not an optimal planting time, but can be done more so in the SE than other peanut production regions in the US.
- These later plantings put more peanuts in their final stages of development and maturation during a late season drought which will be discussed below.
- Harvesting of the 2019 SE peanut crop has essentially come to an end. Roughly 98% of the region's crop has been processed through the Federal State Inspection Service (FSIS) as of November 17.
- Anything that remains to be harvested in the SE will be of questionable quality as harvest started out in a drought, then rains during harvest caused multiple delays, and finally below freezing temperatures were observed throughout most of the region the week of November 10.
- Yields and grades were favorable as the 2019 harvest season commenced, but both factors started to decline once growers began harvesting later planted acreage that felt the brunt of the drought in the SE that started widespread development in mid-September.
- USDA recently increased yield estimates for all SE states. The adjusted estimates are noted in Table 2.

Table 2. USDA yield estimate adjustments, SE states

State	Oct Yield Estimate	Nov Yield Estimate
	lb/ac	
Alabama	3300	3700
Florida	4000	4100
Georgia	4200	4300

- JLA estimates combined SE yield at less than 4000 lb/ac (4483 kg/ha) and most likely closer to 3900 lb/ac (4371 kg/ha) considering the yield drag caused by drought and then rain at harvest.

- USDA estimated harvestable acreage at 972,000 ac (393,354 ha) for the 2019 SE crop, up roughly 1.3% over the 2018 crop of 959,000 ac (388,094 ha). The October Farm Service Agency (FSA) report indicates SE harvestable acreage at 984,009 ac (398,214 ha), which would be a 2.6% increase over 2018 crop acreage.
- The November USDA production estimates suggested the SE would generate 2,027,200 farmer stock tons (1,839,045 MT) of peanuts, amounting to 72% of the total US crop. However, the November 25 FSIS tonnage report shows the SE 11% below the USDA November estimate, while 4% below JLA's most recent estimate.
- Quality in a relatively large portion of the SE 2019 crop remains undetermined, particularly from non-irrigated fields, as many shellers are still shelling 2018 crop and will not be processing 2019 lots until early 2020.
- There are definitely quality concerns in the portion of the 2019 SE crop processed to this point, which will be explained below.

Aflatoxin and Weather

- Commercial SE runner lot samples from the 2019 crop in the JLA system are currently failing the USDA program specifications (> 15ppb average) at a rate of 32% as of November 19, which is extremely high. However, this fail rate is based on 3100 samples and initial shelling of new crop does not always occur at the same time each year. Shellers have the option of processing their high risk, low quality peanut stocks first, which many do, and this can skew numbers in the JLA system at the beginning of the crop year.
- The 2019 crop USDA fail rate of 32% compared to other drought stricken peanut crops during the same time frame are as follows:
 - 2010 crop thru mid-November = 3490 SE runner lots – 33% USDA fail rate
 - 2011 crop thru mid-November = 4989 SE runner lots – 22% USDA fail rate
 - 2016 crop thru mid-November = 6958 SE runner lots – 22% USDA fail rate
- Drought monitor maps comparing the afore mentioned high-risk aflatoxin crops at the peak of harvest are shown in Figure 1. In terms of drought severity, the 2019 crop is similar to what was observed in 2010. However, the 2019 crop endured

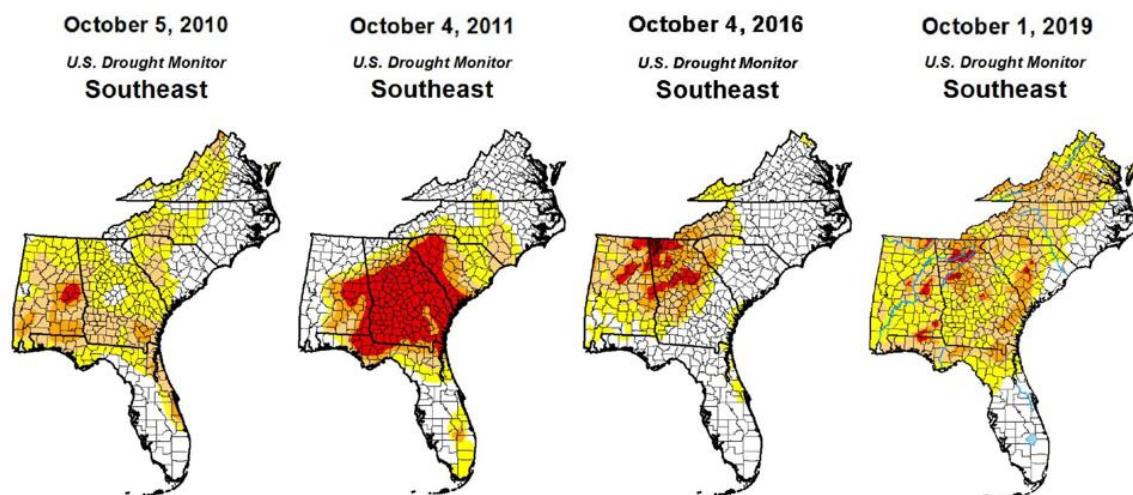


Figure 1. Comparison of severe drought seasons experienced in the SE in 2010, 2011, 2016 with this crop year, 2019. The drought in the SE at the peak of harvest this year appears most like what was experienced in 2010. Source: <https://droughtmonitor.unl.edu/>

above average daytime temperatures later into the season with heat indices around 105°F (40.6°C) well into late September and early October.

- Figure 2 represents final SE runner crop USDA fail rates compared to the current 2019 crop.
- There were some droughty areas in sub-regions of the southeast throughout the majority of the growing season, particularly in east Georgia and southeast Alabama, so elevated aflatoxin risk was expected in these areas. In combination with the late season drought that encompassed the entire region, aflatoxin risk for the 2019 southeast peanut crop will be of concern, especially late planted, non-irrigated acreage.

David DeShazo, B.S. Biology
JLAI Director of Ag Systems

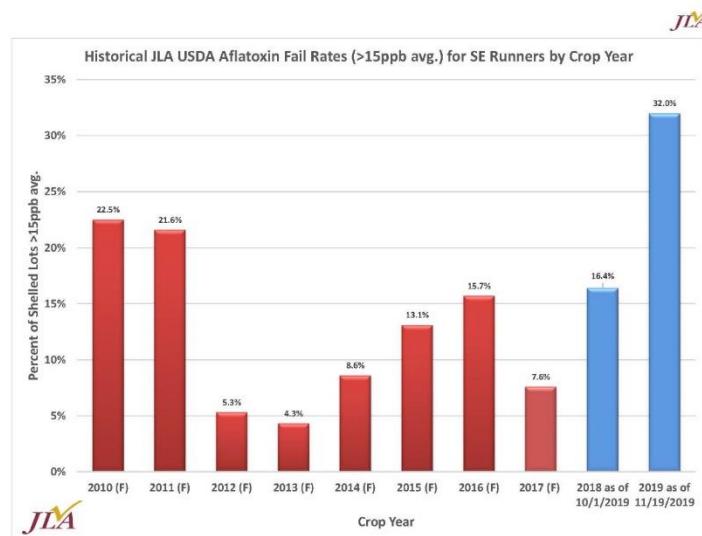


Figure 2. Historical JLA USDA aflatoxin fail rates (>15 ppb avg) for SE runners by crop year. Source: JLAI

Southwest Year-End Summary

Weather conditions

- Overall, weather conditions were generally favorable for peanut development during the 2019 growing season in the SW.
- The crop season started off with excellent moisture in the soil profile. The amount of moisture received in April 2019 was 2-3 in (50.8-76.2 mm) higher than the long-term average for the region, which provided an excellent planting environment. However, wet field conditions continued into late-May delaying planting 7-10 days in parts of the region.
- The SW received below average rainfall from July to September. High wind speeds and high temperatures during this period caused heat and water stress in the peanut crop mid-season.
- Heat unit accumulation was typical in the region, except that average September temperatures were 10-18°F (5.6-10°C) higher than the long-term average. Higher than normal temperatures in September required growers to adjust irrigation management. However, it helped mature late-planted peanuts.

- Freezing temperatures were recorded the second week in October, two weeks earlier than normal, followed by a more intense freeze the first week in November.

Harvest Progress and Yield

- Peanut harvest across the SW is 90% complete, except for a few areas where growers are waiting for field to dry out before harvesting.
- Some growers have needed to irrigate before digging due to the dry soil condition.
- Regardless, most growers were able to harvest on a timely basis while maintaining high yields and market grades.
- According to USDA-NASS, the November forecast of peanut yields were estimated at 3700 lb/ac (4147 kg/ha) in Oklahoma and 3300 lb/ac (3699 kg/ha) in Texas, which are 600 lb/ac (673 kg/ha) and 200 lb/ac (224 kg/ha) higher than the 2018 estimates, respectively.
- Yield reports from Central Texas have been excellent. For example, results from the state-wide variety trial showed average yield of 7900 lb/ac (8855 kg/ha) in runner varieties, 6555 lb/ac (7347 kg/ha) in Spanish varieties, and 6838 lb/ac (7664 kg/ha) in Virginia varieties.
- The high yield estimate combined with the high crop condition index experienced during the 2019 crop season may be due to the lower than average disease pressure in the region. Although there were leaf spot incidents in the Texas Rolling Plains and West Texas, disease effects were minimal. Low humidity due to dry conditions from July to September helped minimize disease development.
- Weed control was good across the region despite high weed pressure, especially in April and May due to high soil moisture. Use of pre-emergence herbicide was critical to keep fields clean for optimum seedling growth.
- Mite infestation was observed in West Texas although damage was not severe.
- Overall, peanut yields and market grades from the SW region are above average this season.

Emi Kimura, Ph.D.

Virginia-Carolina Year-End Summary

Season in Review

- The V-C peanut crop experienced extremes from the beginning of the season until harvest completion. The following is a summary of the 2019 growing season in North Carolina, South Carolina and Virginia.
- Early spring was wet in many areas of the region when farmers were initially preparing fields for planting. In many instances, farmers were able to get fields prepared for the normal planting window (the month of May) but in some cases, soil moisture was completely dissipated by the time primary tillage operations were complete in early to mid-May. This occurred in areas across most of the coastal plain except for the northern section of the region. Fields in the southeastern region of North Carolina became too dry to plant by mid-May. This also occurred in

scattered fields in other areas of the region but was a major issue in southeastern North Carolina.

- Extremely high temperatures and limited soil moisture set the stage for delays in planting. An estimated 15% of acreage in North Carolina and South Carolina was planted in June. Some plantings were the result of dry soils and the need to wait on planting until rainfall occurred. In other fields, growers planted in soils with insufficient soil moisture to achieve adequate stands, forcing planting in mid-June.
- Research in North Carolina has shown that planting in early June often results in a 15% reduction in yield compared with mid-May plantings. An additional 15% reduction in yield is often noted when planting occurs around June 15-20.
- Rainfall during the season was adequate in most areas of Virginia and in portions of northeastern North Carolina (Figure 3). In contrast, rainfall was much more sporadic in the central and southern regions of North Carolina. South Carolina also experienced sporadic rainfall, and in the southern part of the state, dry conditions were prolonged. In some areas, dry conditions along with high temperatures in June and July affected pollination and pod set, and ultimately yield.
- Unlike the previous two growing seasons, disease was lower, and growers were able to minimize canopy defoliation and dig based on optimum maturity. This was due to a combination of using more effective fungicide spray programs and weather conditions that minimized extreme epidemics of leaf spot disease.
- Sclerotinia blight, a disease that is more often experienced in North Carolina and Virginia, was not a major issue in 2019. In contrast, high temperatures caused some challenges in controlling stem rot disease. Tomato spotted wilt was more pronounced in the lower South Carolina region than in Virginia and North Carolina. Fields with lower peanut stands were often the most vulnerable. Some growers also experienced pod rot (caused by *Rhizoctonia*) in their fields, but this issue was sporadic across the region.
- Thrips injury was typical for the region in 2019. Adequate control is needed to protect yield, especially in the upper V-C, and most farmers were able to suppress thrips adequately with a combination of systemic in-furrow sprays or foliar applications of insecticide.
- Foliar-feeding insect outbreaks were sporadic and relatively minor across the region. Some outbreaks of spider mites were noted while burrower bug was not a major issue.
- Weed control across most of the region was adequate to protect yield. Peanuts planted in mid-May often occurred in fields where rainfall was limiting the first few weeks after planting, which limited efficacy of preemergence herbicides. Many growers were able to apply contact herbicides after weeds and peanuts emerged along with additional residual



Figure 3. Peanut field in late summer near Oak City, North Carolina. Source: D. Jordan personal photo

herbicides to extend control further into the season. While farmers often were forced to make a considerable number of applications of herbicides throughout the season, these applications proved effective in protecting yield and enabling efficient harvest in most cases.

Tropical Storms

- Tropical weather events that plagued the V-C region the previous two growing seasons were less evident this year. Substantial rainfall from Hurricane Dorian was received, along with other smaller rainfall events, but the impact was relatively minor in peanut fields. In some cases, rainfall was needed to further mature peanuts planted in June.
- Rainfall from Hurricane Dorian also enabled farmers to more efficiently dig peanuts and invert vines.

Harvest

- Weather conditions throughout the month of September and into early October were considered ideal for digging and harvesting across most of the region, and farmers took advantage of these conditions with a substantial percentage of the crop harvested by the second week in October.
- Peanuts in many fields reached optimum maturity more quickly than in previous years, typically a week earlier than normal predictions. However, cooler temperatures that occurred sporadically in September slowed the pace of maturity and ultimately resulted in peanut digging beginning at the normal time in many fields.
- Environmental conditions became much less favorable for digging and threshing of peanuts as October progressed. While many farmers had completed digging and harvest by early October, the final push to complete harvesting of the V-C peanut crop was more challenging (Figure 4).
- Farmers were forced to work around wet soils and poor drying conditions, which affected harvest speed.
- Some relatively minor issues with aflatoxin were noted across the region, and more recently, freeze damage has occurred as farmers have been forced to dig and harvest in November. Though issues with Segregation 2 and 3 peanuts have been relatively low in the broader context; they can be catastrophic for individual growers.
- Across the region, yield and quality have been good, but the combination of delayed planting and sporadic rainfall limited yield potential. However, yields have been outstanding in some areas across the region and particularly in Virginia. The final overall yield projection for the V-C region is 3,950 lb/ac (4420 kg/ha).

David Jordan, Ph.D.



Figure 4. Recently dug peanut field (top left), peanuts ready to thresh (top right) and a harvested peanut field with a small grain cover crop (right) near Oak City, North Carolina. Source: D. Jordan personal photos (left)



South-Central/Delta Year-End Summary

Harvest Highlights

- Field conditions were nearly perfect from mid-September to mid-October for peanut harvest (Figure 5). Unfortunately, cold temperatures and weekly widespread rainfall in late-October slowed overall harvest progress.
- Currently, harvest is estimated at 80% complete in Mississippi, 75% in Arkansas and 90% in Missouri. These numbers are very close to that of 2018.
- Yield estimates are very good ranging from 4500-5500 lb/ac (5044-6165 kg/ha) in fields that are relatively new in peanut production with slightly lower yields ranging from 3000-4500 lb/ac (3363-5044 kg/ha) in fields with a longer history of production.
- Grade have been good with most coming in above 74 and ranging from 67 to 80.
- In addition to poor field harvest conditions in late-October, some S-C/ Delta peanut farmers waited on trailers that were being processed at the buying point near Pocahontas (Figure 6).

- A hard freeze (>36 hours below freezing) occurred November 11-13 across much of the region (Figure 6). Freeze damage is evident regardless of days the crop was field dried. Peanuts that remain in the field are likely of poor quality.
- Although harvest was a challenge for some farmers, the interest in peanut production in the S-C/Delta region remains high. Given the opportunity to plant peanuts and with competitive pricing, new farmers will likely add peanuts into their production systems in 2020.

In-Season Highlights

- Acres devoted to peanut production in Arkansas in 2019. This increase was primarily due to the new peanut company, Delta Peanut. Some 10,000 additional acres (4047 ha) were planted in the state.
- According to USDA, the total acreage planted to peanuts was 33,000 ac (13,355 ha) in Arkansas, 19,200 ac (7770 ha) in Mississippi, 13,300 ac (5382 ha) in Missouri and 2400 ac (971 ha) in Louisiana.
- Runner-type peanuts dominated acreage with an estimated 65% standard (GA-06G) and 35% high oleic (Georgia 09B, TUFRunner 297 and FloRun 331) cultivars.
- Weather conditions were great at planting and most of the crop was planted by mid-May.
- Widespread and frequent rainfall from Tropical Storm Barry caused excessive flooding in June with the Arkansas River reaching record flood stage causing barge traffic to halt.



Figure 5. Peanut digging began in late August and by early September, some of the first crop was threshed.
Source: T. Faske personal photos



Figure 6. Harvest equipment waiting idle for empty trailers in mid-October (left), while a hard freeze in late October killed all S-C/Delta peanuts remaining in the field (right). Source: T. Faske personal photos

- Hot, dry conditions persisted in July with oppressive heat most of August and September. The hot weather helped finish out some of the late planted crop with harvest starting earlier than in 2018.
- Disease pressure was relatively low for the region with the most common diseases, leaf scorch, Southern blight, Sclerotinia blight, pod rot complex and late leaf spot (Figure 7).



Figure 7. Some of the more common diseases observed this year consisted of Southern blight (*Sclerotium rolfsii*) (top left), Sclerotinia blight (*Sclerotinia minor*) (top right) and late leaf spot (*Cercosporidium personatum*) (right). Source: T. Faske personal photos.

- Insect pressure was low with the occasional report of potato leaf hopper injury.
- Weed pressure was the most widespread issue in pest management with herbicide resistant weeds like glyphosate-resistant Palmer amaranth being one of the most common in the mid-South. Other weeds of increasing concern consist of sickle pod, eclipta and morning glory vines.

New Buying Points

- Delta Peanut Cooperative (DPC) was established in winter 2019 with plans to build two new buying points and a shelling plant in Arkansas.
- The first buying point to begin construction was in central Arkansas near the Mississippi River in a town called Marianna. Construction began in June and four month later, peanuts were being received and processed at the new buying point. This facility handled many of the peanuts in central and south Arkansas.
- The second and largest buying point was constructed near Jonesboro, Arkansas, which is in the northeast corner of the state. Construction began in August and took a little longer due to the size of the project and permits required for the area. This buying point should be fully operational in 2020 (Figure 8).



Figure 8. Construction progress at new Delta Peanut Buying Point near Jonesboro, Arkansas on November 5, 2019. Source: T. Faske personal photo

- Most of DPC's contracted peanut crop was processed through a commission buying point in Pocahontas, Arkansas. This buying point processed more peanuts than expected this season.
- Construction of the shelling plant has yet to begin, but it will be located near Jonesboro, Arkansas.

Travis Faske, Ph.D.

Argentina

Weather

- The new peanut season in Argentina started under drought conditions and unfavorable temperatures.
- As seen in Figure 9, during the months of August, September and October, the main peanut production areas experienced low rainfall, below the 2007-2019 historical average. This situation delayed planting in most locations across the peanut belt. A few fields were sown at the end of October.

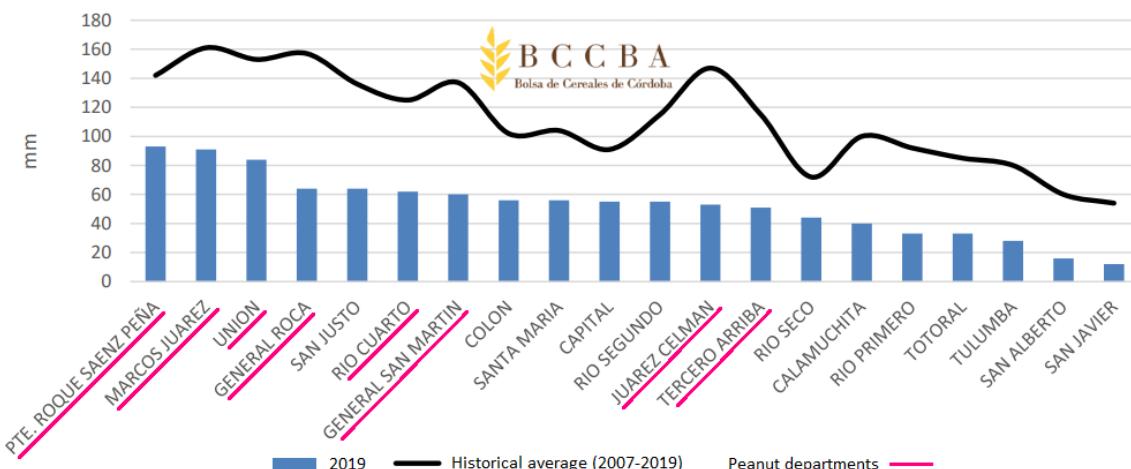


Figure 9. Cumulative rainfall (mm) from September to November 2019 compared to the 2007-2019 historical average. Source: Agroeconomic Information Department, BCCBA, Report No 186

- During the first ten days in November, the peanut area received 15-75 mm (0.59-2.95 in) of rainfall. The highest amounts were concentrated in the west-central peanut area (Figure 10). Minimal rainfall has been received since then.
- Though the soil water balance available for the crop to a one-meter depth is better in the west-central portion of the peanut belt, much of the remaining peanut area has insufficient soil moisture (Figure 10).

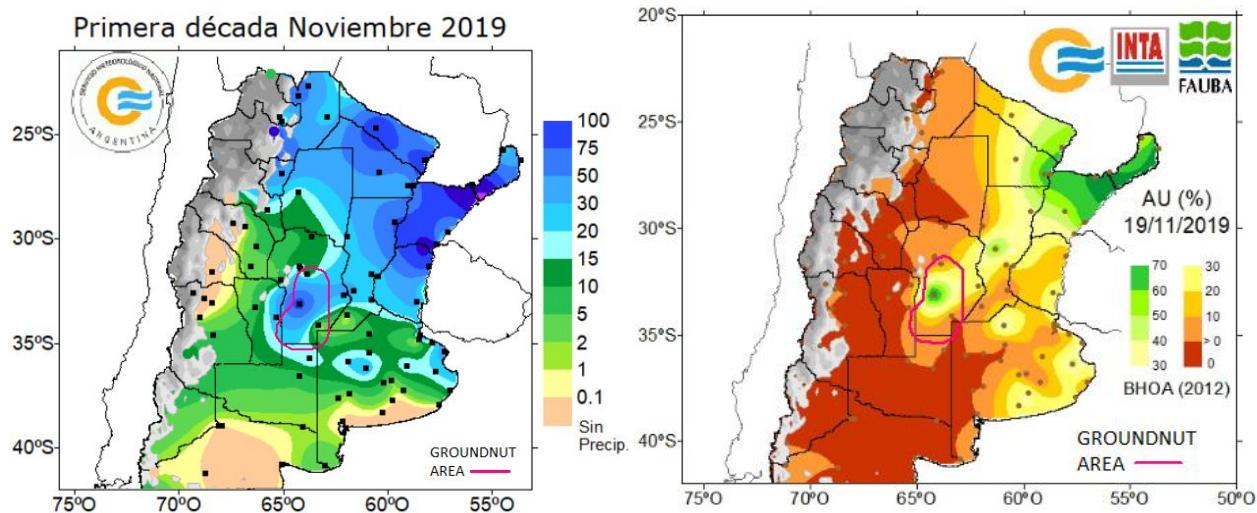


Figure 10. Cumulative rainfall the first ten days in November across the Argentine peanut belt (left) and soil moisture balance as of November 19 (right). Though rain was received, the soil profile is deficient in most locations in the peanut belt. Source: NWS

- Currently, the peanut sector is expecting better rainfall, which will facilitate good seedling emergence and allow farmers to continue planting.

Planting Intentions and Crop Progress

- After consultation with farmers and peanut shellers, JLA estimates that the area planted to peanuts for the 2019/20 season will be 5% lower than sown last season, the lowest amount planted in five seasons (Table 3).

Table 3. Projected plantings of peanuts in Argentina

Season	Planted Area (ha)	Variation (%)
2018/2019	355,000	
2019/2020	338,000*	-5%

Source: JLA projection*

- Assuming an average yield of 3200 kg/ha (2855 lb/ac), final "in-shell" production could reach 1,081,600 MT (1,192,260 tons).
- According to the peanut industry, the reduction in the area planted to peanuts could be explained by two factors: 1) Lack of available funding associated with the current economic crisis. At the time of negotiating financing for the new season, several companies and farmers found that despite normal, timely fulfillment of credit obligations, they were not granted new operational funds or if loans were extended,

they were reduced generating lack of liquidity. 2) Uncertainty at the time of decision making due to this being an election year. August is the month when producers must make planting decisions, especially those who are leasing land. So, the expected change in the federal government resulted in a reduction of the planted area.

- The Ministerio de Agricultura, Ganadería y Pesca de la Nación, in its weekly report issued on November 14th noted:
 - About 65% of the peanut crop in the southern portion of Marcos Juárez Department was planted. Some fields have not totally emerged and those that have, are experiencing poor soil moisture conditions. Plant density is not ideal, and gaps are observed in fields.
 - Due to low moisture conditions, peanut sowing in Rio Cuarto Department has not yet finished. However, some fields were planted into dry soil anticipating rainfall in the coming days. Currently, about 83% of peanut acres have been sown.
 - Only 17% of peanut fields have been sown in Villa María Department due to low soil moisture.
- So far, we consider that 60% of the Argentine peanut crop is sown and planting of the entire crop could be finished in the first week of December. Figures 11-13 illustrate the early stages of the 2019/20 Argentine peanut crop.

Marcelo Héctor Cavigliasso, Agronomist



Figure 11. A peanut field located approximately 10 km from General Cabrera in Juárez Celman Department. This field is next to Provincial Route No 11. Peanuts were planted using reduced tillage into soybean stover. Planting date is unknown, but likely at the beginning of November. Lack of uniformity in plant emergence can be observed. Source: M. Cavigliasso personal photos



Figure 12. On average, peanuts in this field are moving from vegetative stage V4, fourth trifoliate leaf (left), while some plants are just emerging (right). Source: M. Cavigliasso personal photos



Figure 13. We noticed an excellent control of weeds. However, some plants of *Conyza bonariensis* have escaped to the action of herbicides (left picture). We also observed mild symptoms of phytotoxicity due the application of plant protection products (right picture). Source: M. Cavigliasso personal photos