

Foreign Agricultural Service

Global Market Analysis

International Production Assessment Division

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Commodity Intelligence Report

Central America: Hurricanes Eta and Iota Damaged Grains in Honduras, Nicaragua, Guatemala, and El Salvador; Some Recovery Expected in MY 2021/2022

Hurricane Eta and Hurricane Iota landed on Nicaragua's Caribbean coast as Category 4 hurricanes, on November 3, 2020 and November 16, 2020, respectively, causing damage to crops, infrastructure (roads, buildings, and bridges), and human lives throughout Central America from flooding, strong winds, and landslides (**see Figure 1**). These hurricanes have been considered the most damaging to Honduras and Nicaragua since Hurricane Mitch in November 1998.

USDA Foreign Agricultural Service worked with local officials to provide preliminary crop damage assessments immediately after the storms for marketing year (MY) 2020/2021. This report updates the crop damage assessments for the region. Grains, such as corn, rice, and sorghum, can be planted in up to three seasons in Central America: the *primera* (main season), the *postrera* (second season), and the *apante* (third season) (**see Figure 2**). The *postrera* harvest was almost completed in November and was the most impacted by these hurricanes. For the grains monitored in this report, corn was reported as the most damaged grain overall in Central America (**see Figure 3**).

Though the hurricane season in Central America ended at the end of November, rainfall in December continued the wet soil conditions from November, which delayed some of the harvest of the *postrera* crops and planting of the *apante* crops (**see Figure 4**).

Primera planting has already started for grains started throughout the Central America region for MY 2021/2022. Weather conditions are forecasted to be favorable with average rainfall conditions expected throughout the season for most of Central America. Recovery for these crops for the MY 2021/22 is dependent on support for planting seeds and financial entities for new loans (**see Figure 5**).

Honduras

Hurricanes Eta and Iota significantly impacted the agricultural sector in Honduras, especially in the northern parts of the country. Hurricane Eta landed in southern Honduras around November 4, 2020 and moved north towards the Yoro department. Hurricane Iota entered southern Honduras around November 17, 2020 and moved westward.

Honduras Palm Oil

Honduras's palm oil production for 2020/21 is estimated at 450,000 metric tons, down 130,000 tons (22 percent) from 2019/2020. Area harvested is estimated at 182,000 hectares (ha), down 18,000 ha (9 percent) from 2019/2020. Yield is estimated at 2.47 metric tons per hectare, down 15 percent from 2019/2020.

Palm production in Honduras mainly occurs in the north where the path of Hurricane Eta impacted the country more significantly, including the departments of Cortés, Atlántida, Colón, Yoro, and Santa Bárbara (**see Figure 6**). Though November is a time of above average harvesting for palm production in Honduras, farmers that were still planting palm close to the time the hurricanes arrived were affected by the storms severely.

Various areas throughout the department of Cortés have reported severe damage from both hurricanes (**see Figure 7**). The Ulúa River caused flooded surrounding palm plantations such as in the lowlands of the palm area in Baracoa. Some palm farms in Puerto Cortés in the Cortés Department suffered severe damages due to being flooded for at least three weeks after Hurricane Iota. Reports stated that farmers were still cleaning up in late January after the two storms affected the November palm harvest.

The Ministry of Agriculture and Livestock (SAG) concluded that the Honduras palm crop was negatively impacted the most by the storms out of all its crops. According to the Association of Oil Palm Oil Producers of Honduras, the two hurricanes flooded 150,000 ha of palm area and destroyed 18,600 ha of it. Using financing support from bank loans, SAG plans to restore at least 13,000 ha of damaged palm planted area.

Honduras Rice

Honduras's rough rice production for 2020/21 is estimated at 92,000 metric tons (mt), down 17,000 mt from November 2020 (about 16 percent), but up 14,000 mt (about 18 percent) from 2019/2020. Milled production is estimated at 59,000 mt. Area harvested is estimated at 22,000 hectares (ha), down 2,000 ha (about 8 percent) from 2019/2020. Yield is estimated at 4.18 metric tons per hectare.

Rice is mainly planted throughout Honduras in late July during the main season and late February during the second season (**see Figure 8**). Hurricanes Eta and Iota arrived during the end of the main rice harvest season in Honduras (**see Figure 9**). According to the president of Colon rice producers, at least 50 percent of the rice production in Colon was destroyed. Rice producers were also worried about the impacts of the flooding of Aguán River in Santa Rosa De Aguán, Colon. SAG stated that Colon rice farmers will receive aid to recover from the damages.

Honduras Corn

Honduras's corn production for 2020/21 is estimated at 500,000 metric tons (mt), down 20,000 mt (about 4 percent) from 2019/2020. Area harvested is estimated at 340,000

hectares (ha), down 10,000 ha (about 3 percent) from 2019/2020. Yield is estimated at 1.47 metric tons per hectare, down 1 percent from 2019/2020.

The main corn season in Honduras is planted in May and June (**see Figure 8**). The two tropical storms did not impact the main Honduras corn crop as it was mostly finished harvesting in October. However, since the second corn crop was in the growing stage in November, it was greatly affected by Hurricanes Eta and Iota. Government assessments reported destroyed corn crops in many departments, including Cortés, Santa Bárbara, Olancho, Yoro, Valle, El Paraíso, and Atlántida (**see Figure 10**). The Food and Agriculture Organization of the United Nations (FAO) is planning to support Honduras farmers with corn seeds.

Honduras Sorghum

Honduras's sorghum production for 2020/21 is estimated at 37,000 metric tons (mt), down 3,000 mt (about 8 percent) from 2019/2020. Area harvested is estimated at 33,000 hectares (ha), down 2,000 ha (about 5 percent) from 2019/2020. Yield is estimated at 1.12 metric tons per hectare, down 2 percent from 2019/2020.

In Honduras, sorghum is typically planted from May to July and harvested from November to January (**see Figure 8**). Reports stated that there were at least 2,000 ha of damaged sorghum harvested area in the following departments: Choluteca, Comayagua, Cortés, El Paraíso, Olancho, Valle, and Yoro. During site assessments in November 2020, SAG observed major sorghum destruction in Valle and Choluteca due to flooding in small and medium farms (**see Figure 11**).

Nicaragua

In November 2020, both Hurricane Eta and Hurricane Iota landed in northern Nicaragua, impacting a variety of harvested crops (**see Figure 12**).

Nicaragua Rice

Nicaragua's rough rice production for 2020/21 is estimated at 412,000 metric tons (mt), down 12,000 mt (about 3 percent) from November 2020, and up 9 percent from 2019/2020. Milled production is estimated at 272,000 mt. Area is estimated at 97,000 hectares, down 3 percent from 2019/2020. Yield is estimated at 4.24 metric tons per hectare, up 12 percent from 2019/2020.

Nicaragua is the largest rice producer in Central America and has three different rice growing cycles. The rice in Nicaragua is about 80 percent irrigated. About half of the irrigated rice crop was planted in January and February and harvested from April through June and was not impacted by Hurricanes Eta and Iota. However, the hurricanes did damage some of the second irrigated rice crop and rainfed rice crop, as they were both harvested in November. Both hurricanes destroyed rice crops through extensive flooding

and strong winds (**see Figure 13**). The FAO planned to support farmers impacted by the hurricanes in Nicaragua with rice seeds and technical guidance.

Nicaragua Corn

Nicaragua's corn production for 2020/21 is estimated at 285,000 metric tons (mt), down 5,000 mt (about 1 percent) from November 2020, and up 1 percent from 2019/2020. Area is estimated at 285,000 hectares, up 1 percent from 2019/2020. Yield is estimated at 1.40 metric tons per hectare.

The main corn crop finished harvesting in September. In November, Nicaragua's second corn crop was being harvested and the third corn crop was being planted. Major corn crop damages were reported in Rivas, Carazo, Jinotega, León, and Matagalpa (**see Figure 14**). To help Nicaragua corn farmers, the FAO planned to offer corn seeds and technical support.

Nicaragua Peanuts

Nicaragua's peanut production for 2020/21 is estimated at 180,000 metric tons (mt), up 5,000 mt (1 percent) from 2019/2020. Area is estimated at 40,000 hectares, up 5,000 ha (1 percent) from 2019/2020. Yield is estimated at 4.50 metric tons per hectare, unchanged from 2019/2020.

Approximately 90 percent of peanuts are grown in northwestern Nicaragua, in the departments of León and Chinandega. The remaining 10 percent of peanut production is grown in southwestern Nicaragua. In Nicaragua, peanuts are typically planted from July to September with harvesting starting in mid-November. However, the excess rains from the hurricanes in November and continued rainfall in December postponed some of the peanut harvest for an additional three weeks. Despite minor peanut damage reported, peanut production was not impacted by the hurricanes as farmers were able to recover from the damage.

Guatemala

Though neither Hurricane Eta nor Hurricane Iota landed directly in Guatemala, the departments of Quiché and Alta Verapaz were impacted by the hurricanes. Many of the grain crops in Guatemala were in the harvesting stage when the hurricanes arrived (**see Figure 15**).

Guatemala Corn

Guatemala's corn production for 2020/21 is estimated at 1,645,000 metric tons (mt), down 35,000 mt (2 percent) from 2019/2020. Area is estimated at 850,000 hectares, down 20,000 ha (2 percent) from 2019/2020. Yield is estimated at 1.93 metric tons per hectare, unchanged from 2019/2020.

Though corn is grown throughout various parts of Guatemala, the top corn producing departments include Petén, Alta Verapaz, Quiché, and Huehuetenango. Guatemala's main corn production areas (67 percent) started planting from April to May and began harvest in August. Guatemala also has a third minor corn season (7 percent) that started harvesting in January. Guatemala's second corn season (27 percent) was the most impacted by the hurricanes as it started harvesting in November.

According to data from the Ministry of Agriculture (MAGA), approximately, 50,000 ha of corn and 72,204 subsistence farmers in Guatemala were affected by Hurricane Eta and Hurricane Iota. The second corn crop experienced damage by floods from the hurricanes; the most impacted departments were Izabel, Alta Verapaz, Petén, Santa Rosa, and Quiché (**see Figure 16**). In the departments of Quiché and Alta Verapaz, the FAO planned to provide corn seeds and farming equipment to farmers that were impacted by the hurricanes.

Guatemala Rice

Guatemala's rough rice production for 2020/21 is estimated at 23,000 metric tons (mt), down 4,000 mt (15 percent) from 2019/2020. Milled production is estimated at 16,000 mt. Area is estimated at 4,000 hectares, down 1,000 ha (20 percent) from 2019/2020. Yield is estimated at 5.75 metric tons per hectare, up 6 percent from 2019/2020.

Rice is grown in various parts of Guatemala by mostly small producers, with 60 percent of the rice production found in the departments of Petén and Alta Verapaz and 37 percent of the rice produced in San Marcos, Chiquimula, Izabal, and Jutiapa.

The major Guatemala rice crop (71 percent) was impacted by Hurricane Eta and Iota, as it is harvested from August to December. Impacting both commercial and non-commercial rice farmers, at least 1,656 mt of rice damages were reported in the departments of Alta Verapaz, Santa Rosa, and Petén (**see Figure 17**). In Atla Verapaz, the Cahabon and Polochic rivers flooded and destroyed about 420 ha of rice crops in the Polochic Valley. MAGA planned to provide support for rice farmers impacted by the hurricanes.

El Salvador

Though Hurricane Eta did not land directly El Salvador, Hurricane Iota landed in the eastern part of the country around November 18, 2020 moving westward from La Unión to San Salvador.

El Salvador Corn

El Salvador's corn production for 2020/21 is estimated at 820,000 metric tons (mt), down 10,000 mt (1 percent) from 2019/2020. Area is estimated at 295,000 hectares (ha), down 5,000 ha (2 percent) from 2019/2020. Yield is estimated at 2.78 metric tons per hectare.

In November, the main El Salvador corn crop was being harvested, while the second corn crop was in the growing stage (**see Figure 18**). Major corn damages were reported in departments such as La Libertad, Ahuachapán, and areas in the southeastern part of the country as well (**see Figure 19**). The government reported that they provided farmers with new corn seeds to replant damaged areas. The Ministry of Agriculture and Livestock (MAG) also created an emergency plan to help corn farmers lessen the damage from the storms.

El Salvador Sorghum

El Salvador's sorghum production for 2020/21 is estimated at 100,000 metric tons (mt), up 5,000 mt (about 5 percent) from 2019/2020. Area harvested is estimated at 81,000 hectares (ha), up 1,000 ha (about 1 percent) from 2019/2020. Yield is estimated at 1.23 metric tons per hectare, up 4 percent from 2019/2020.

Despite the flooding, government sources did not report any major damages in El Salvador sorghum from the hurricanes.

El Salvador Rice

El Salvador's rough rice production for 2020/21 is estimated at 34,000 metric tons (mt) up 9,000 mt (36 percent) 2019/2020. Milled production is estimated at 22,000 mt. Area is estimated at 5,000 hectares, up 1,000 mt from 2019/2020. Yield is estimated at 6.8 metric tons per hectare, up 9 percent from 2019/2020.

According to MAG, El Salvador's rice production did not experience significant damage from the hurricanes despite flooding.

Central America: Heavy Precipitation, November 2020

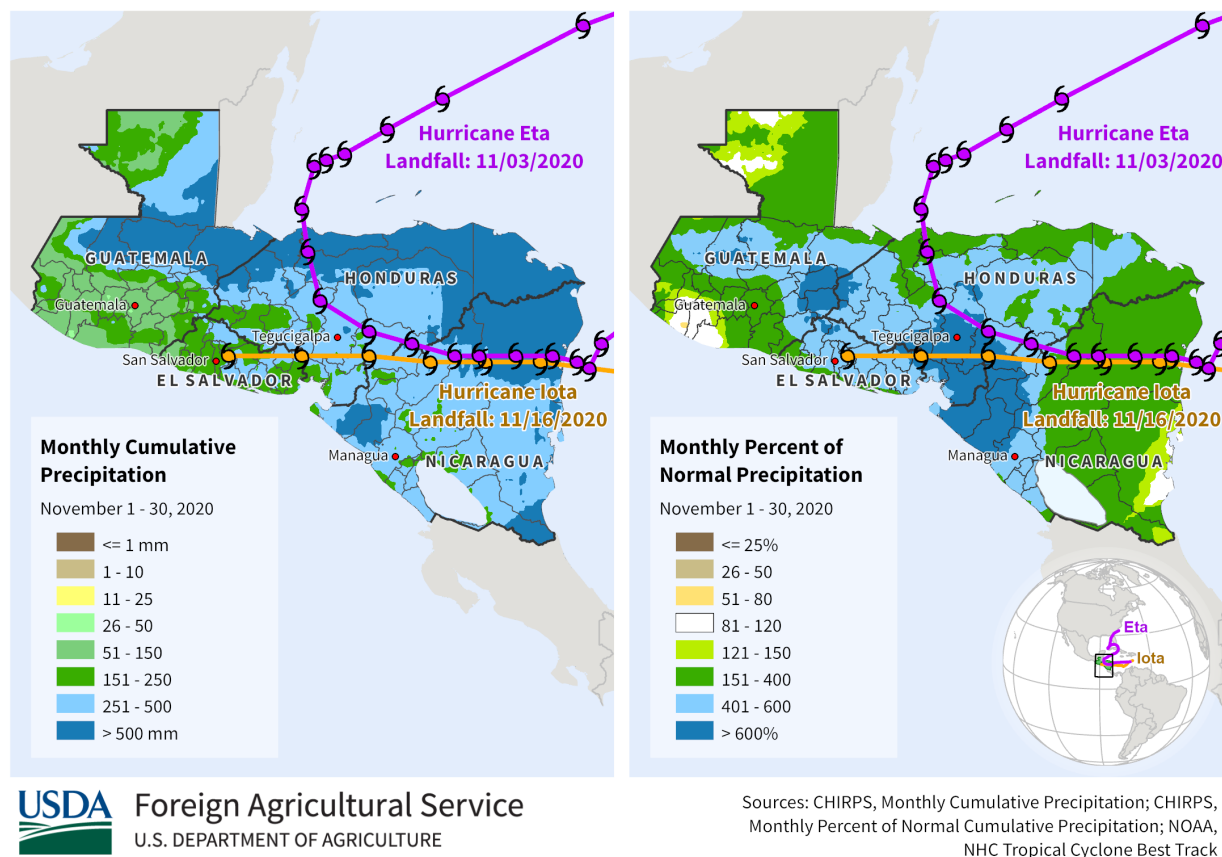


Figure 1. Monthly Cumulative Precipitation (mm) and Monthly Percent Normal Precipitation after the passage of Hurricane Eta and Hurricane Iota in Central America during the month of November 2020.

Central America – Seasonal Crop Calendar

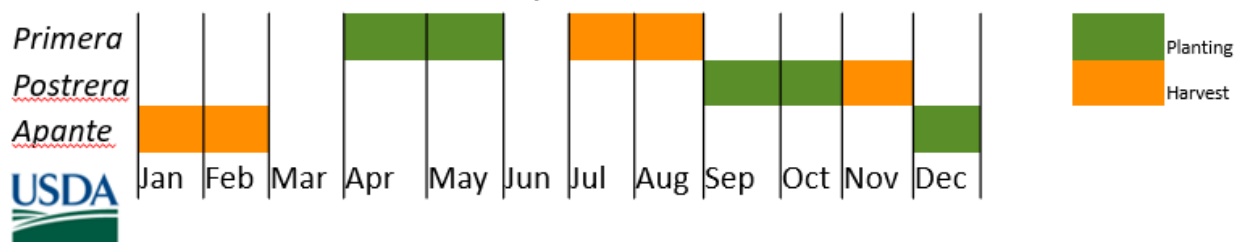
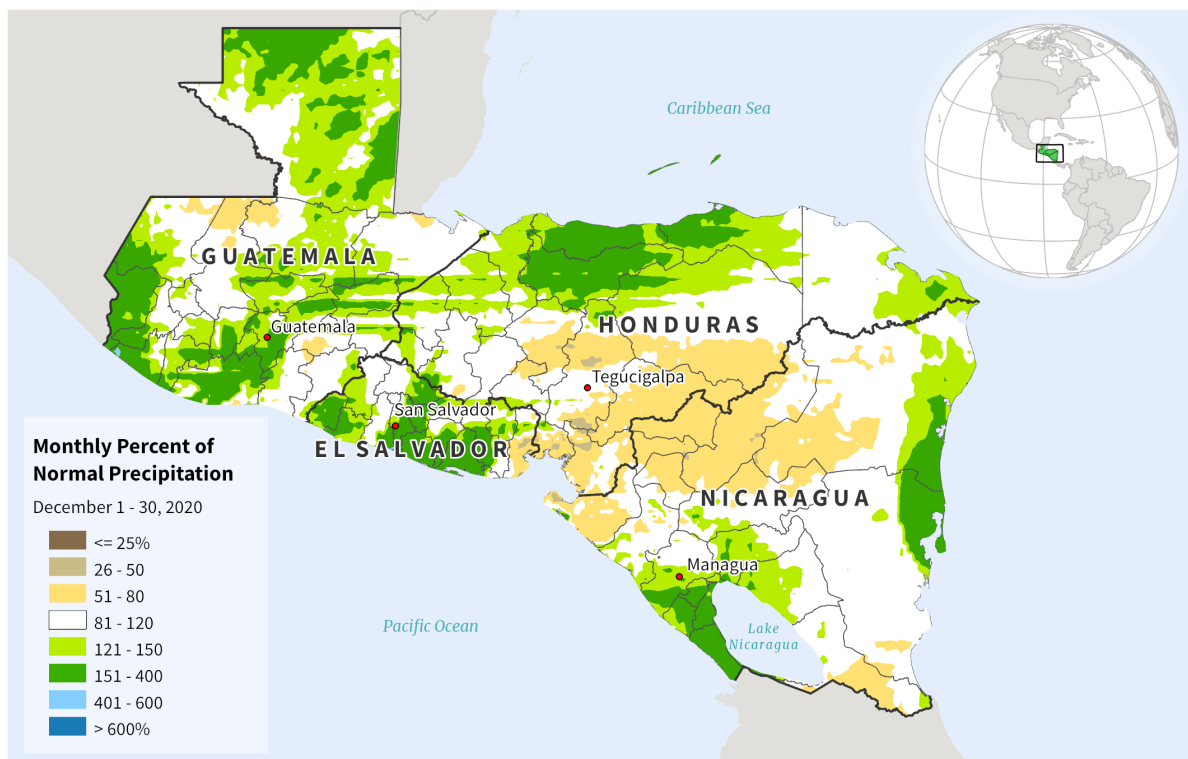


Figure 2. Central America Seasonal Crop Calendar.

MY 2020/2021				
Crop	Country	Production	Area	Yield
		Metric tons (mt)	Hectares(ha)	mt/ha
Corn	Honduras	500,000	340,000	1.47
	Nicaragua	400,000	285,000	1.40
	Guatemala	1,645,000	850,000	1.94
	El Salvador	820,000	295,000	2.78
Rice	Honduras	59,000	22,000	4.18
	Nicaragua	272,000	97,000	4.25
	Guatemala	16,000	4,000	5.75
	El Salvador	22,000	5,000	6.80
Sorghum	Honduras	37,000	33,000	1.12
	El Salvador	100,000	81,000	1.23
Palm Oil	Honduras	450,000	182,000	2.47
Peanut Oilseed	Nicaragua	180,000	40,000	4.50

Figure 3. Central America Corn Production, Sorghum Production, Palm Oil Production, Peanut Oilseed Production, and Rice Milled Production for MY 2020-2021. Source: USDA PSD.

Central America: Percent of Normal Cumulative Precipitation



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Sources: CHIRPS, Monthly Percent of Normal Cumulative Precipitation

Figure 4. The Percent of Normal Cumulative Precipitation in Guatemala, El Salvador, Honduras, and Nicaragua for the month of December 2020 following Hurricanes Eta and Iota.

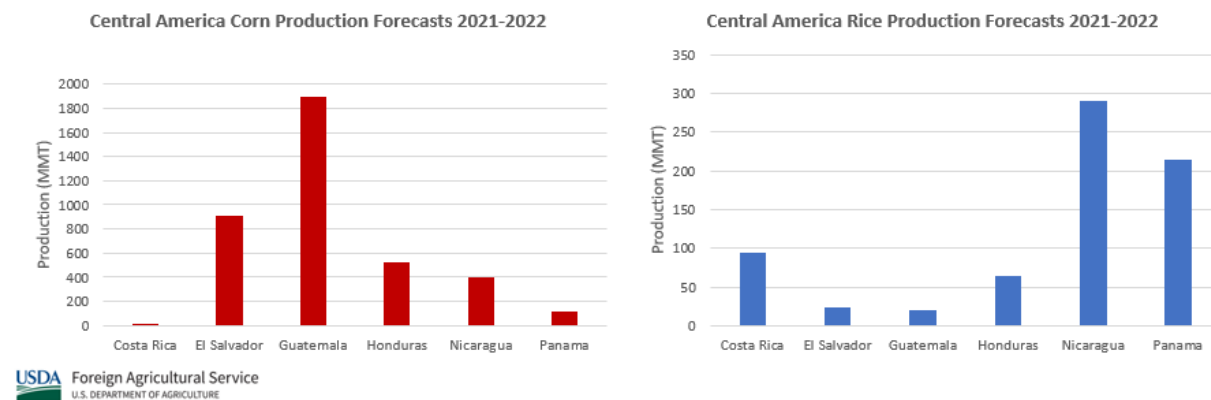
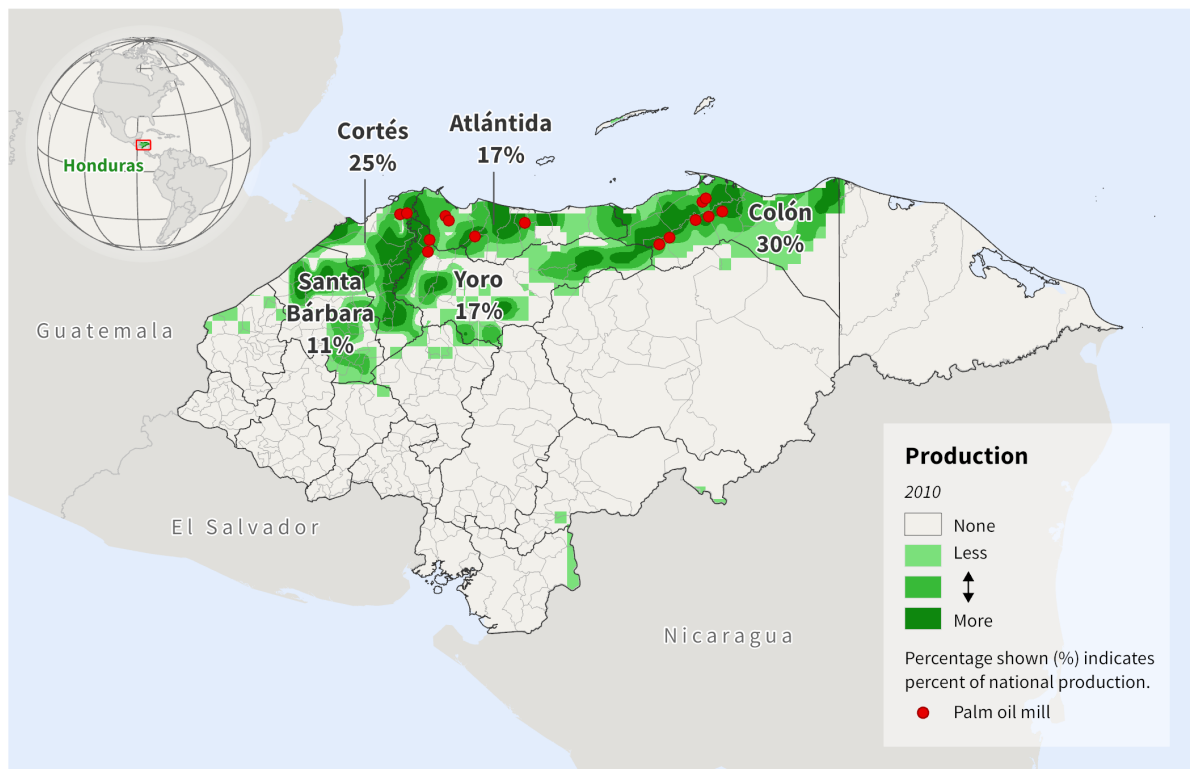


Figure 5. Central America Corn Production and Milled Rice Production Forecasts for MY 2021-2022.
Source: USDA PSD.

Honduras: Palm Oil Production



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Sources: International Food Policy Research Institute, SPAM 2010; Global Forest Watch, Universal Mill List

Figure 6. Honduras Palm Oil Production by Department and Palm Oil Mill Locations Based on SPAM 2010 and Global Forest Watch data.

Honduras: Heavy Precipitation in Palm Oil Production Areas

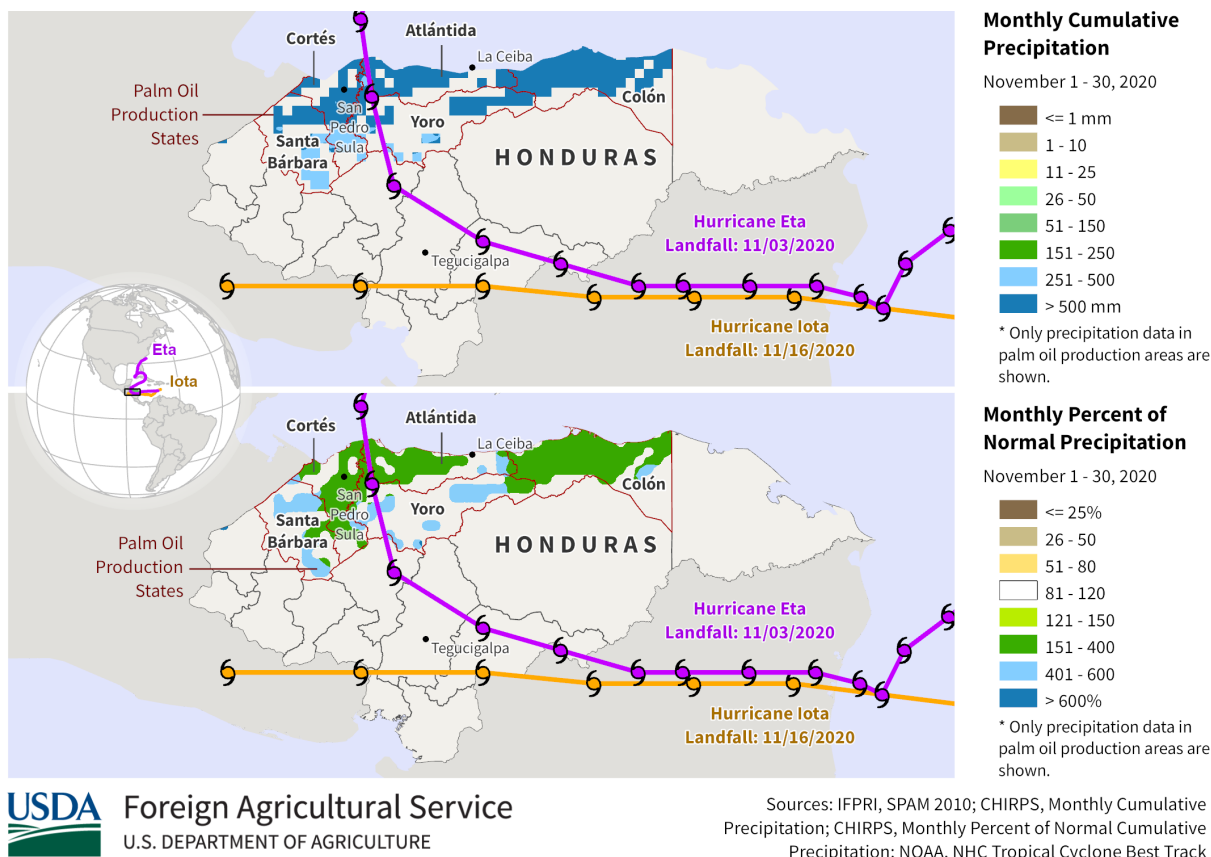
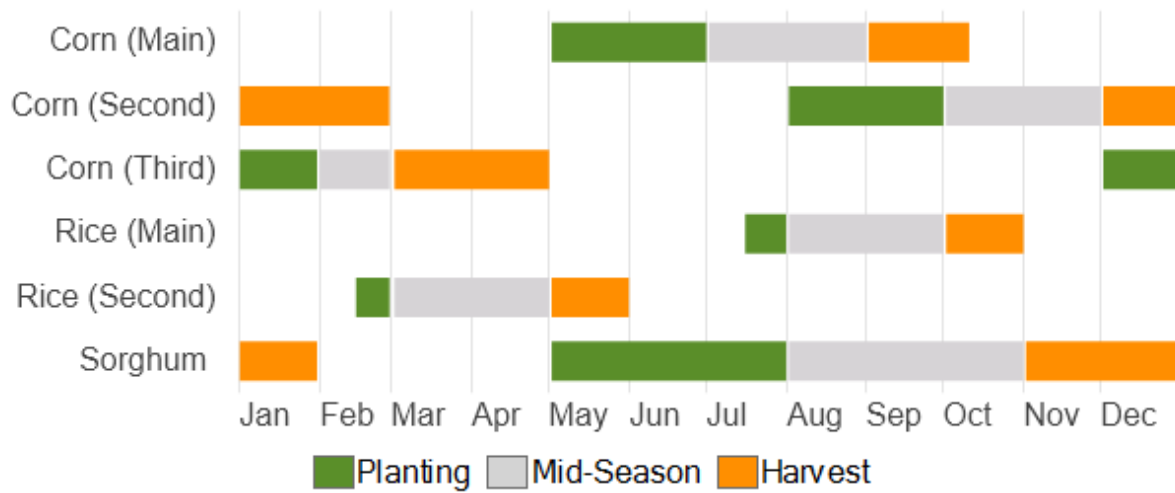


Figure 7. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Honduras Palm Oil Production Departments during November 2020. Only precipitation data in major palm oil production areas are shown.

Honduras – Crop Calendar



Source: FAO/GIEWS

Figure 8. Honduras Crop Calendar for Corn, Rice, and Sorghum.

Honduras: Heavy Precipitation in Rice Production Areas

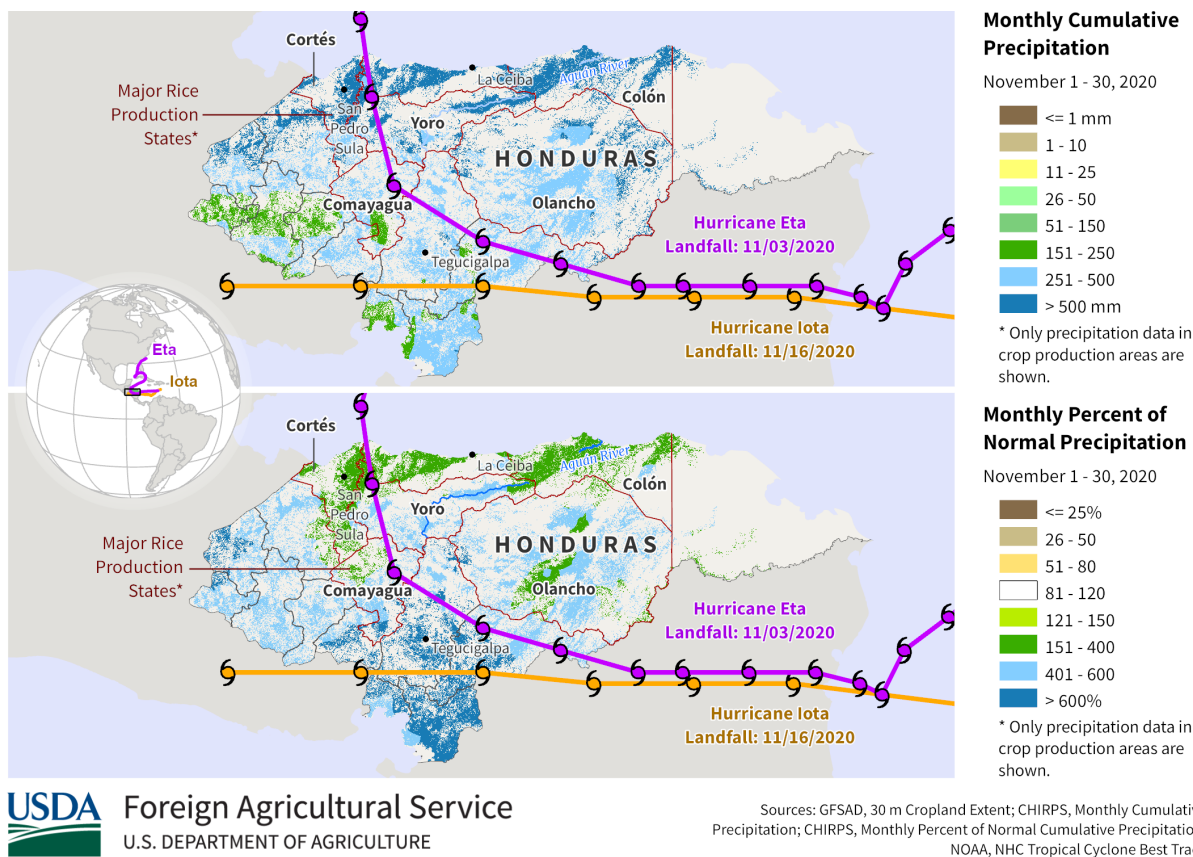


Figure 9. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Honduras Rice Production Departments during November 2020. Only precipitation data in major agricultural production areas are shown, with major rice production states outlined in brown.

Honduras: Heavy Precipitation in Corn Production Areas

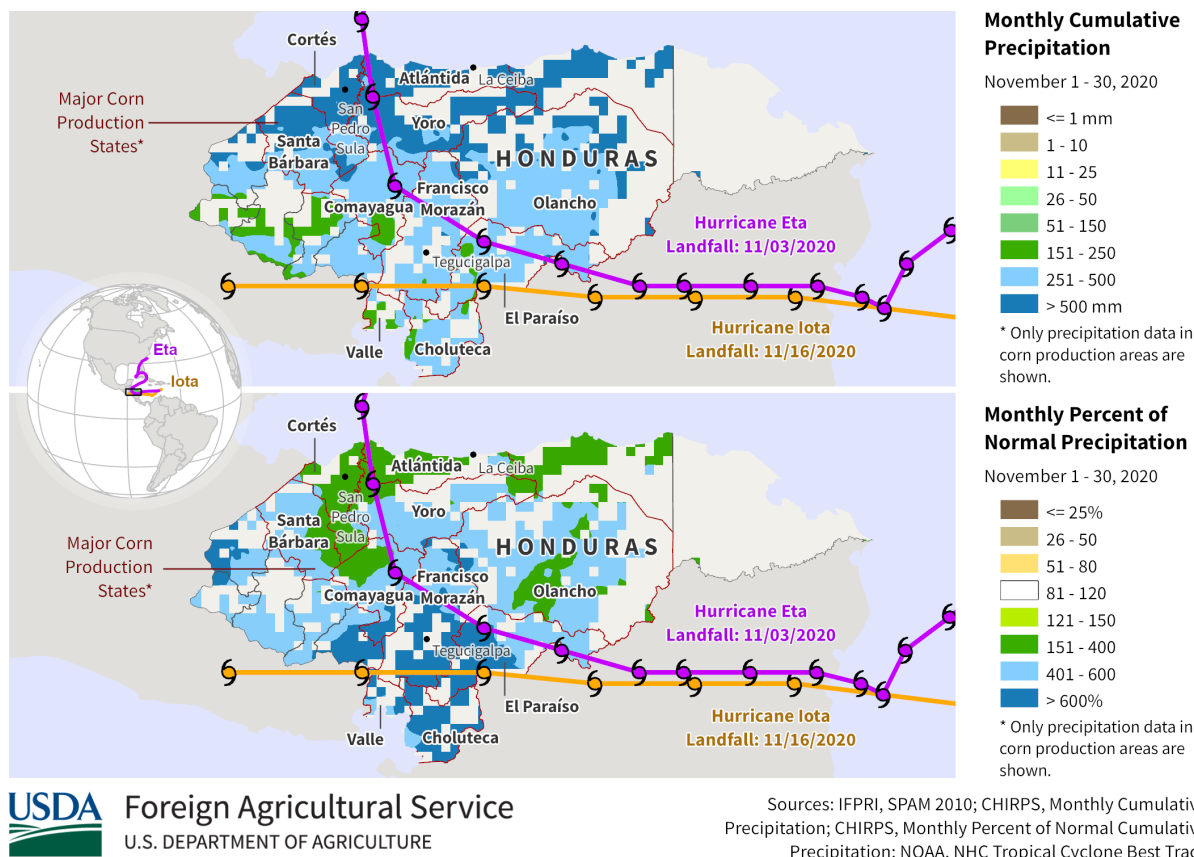


Figure 10. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Honduras Corn Production Departments during November 2020. Only precipitation data in major corn production areas are shown.

Honduras: Heavy Precipitation in Sorghum Production Areas

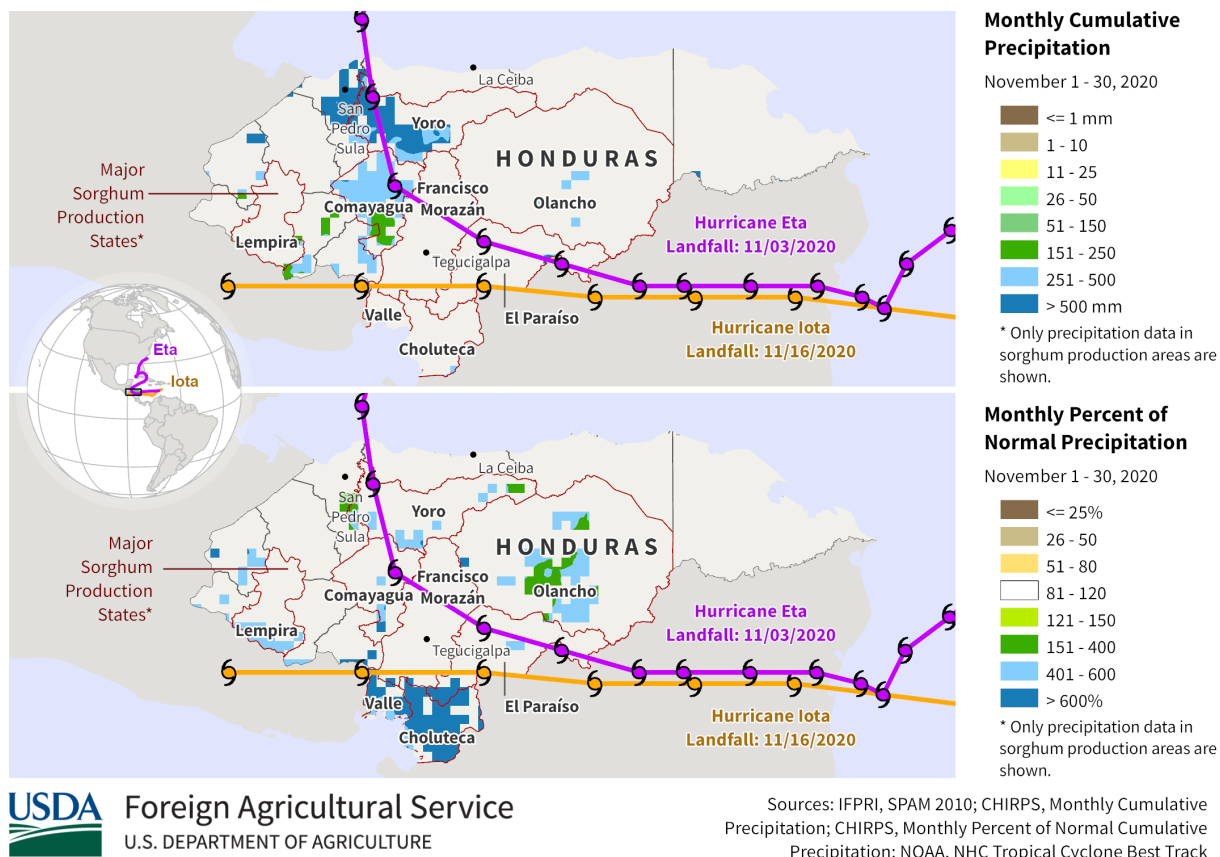


Figure 11. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Honduras Sorghum Production Departments during November 2020. Only precipitation data in major sorghum production areas are shown.

Nicaragua – Crop Calendar

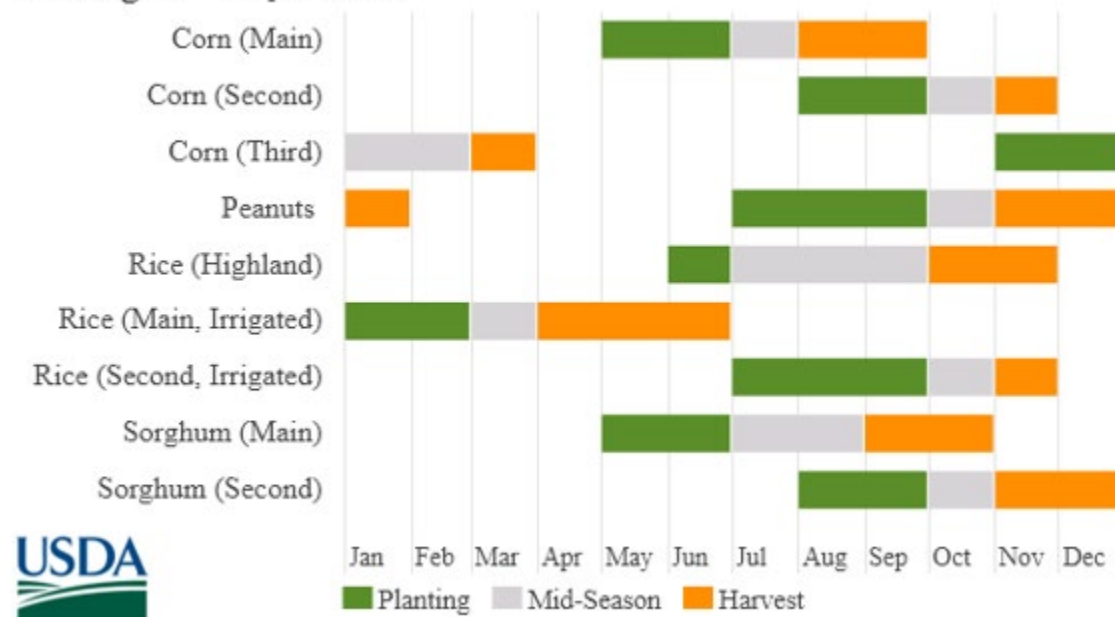
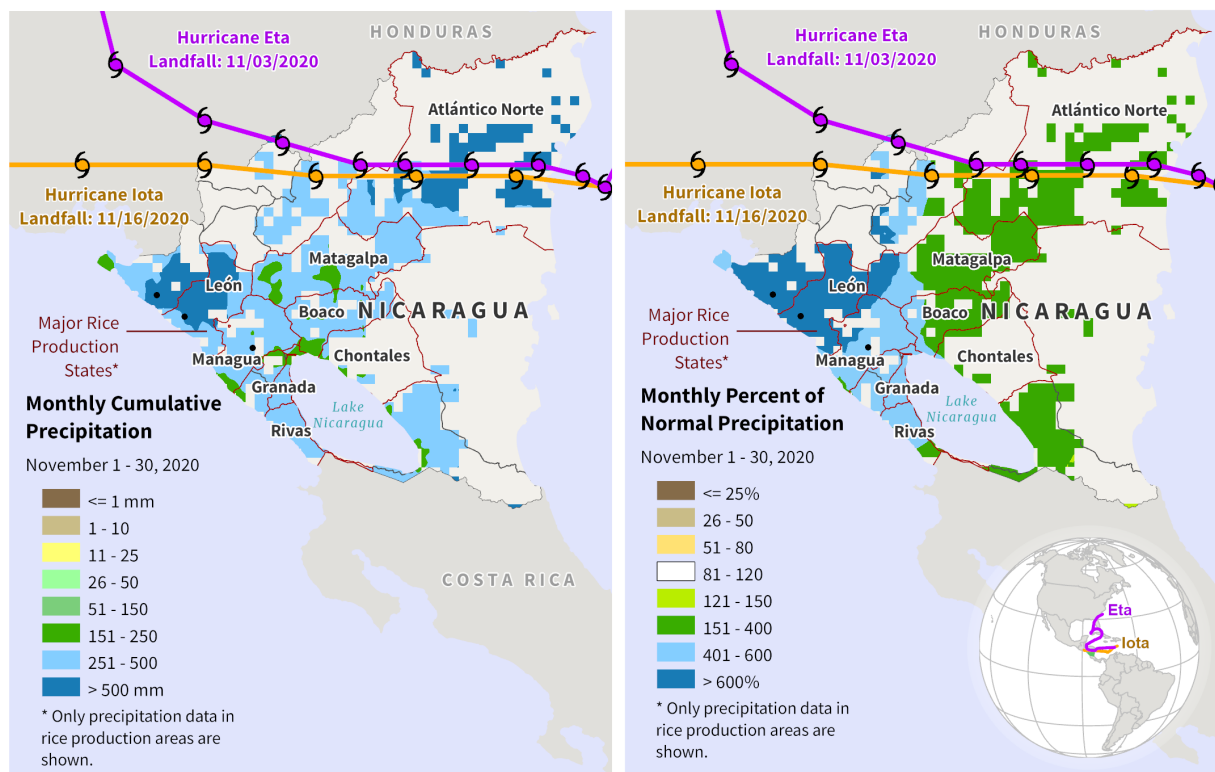


Figure 12. Nicaragua Crop Calendar for Corn, Rice, Peanuts, and Sorghum.

Nicaragua: Heavy Precipitation in Rice Production Areas

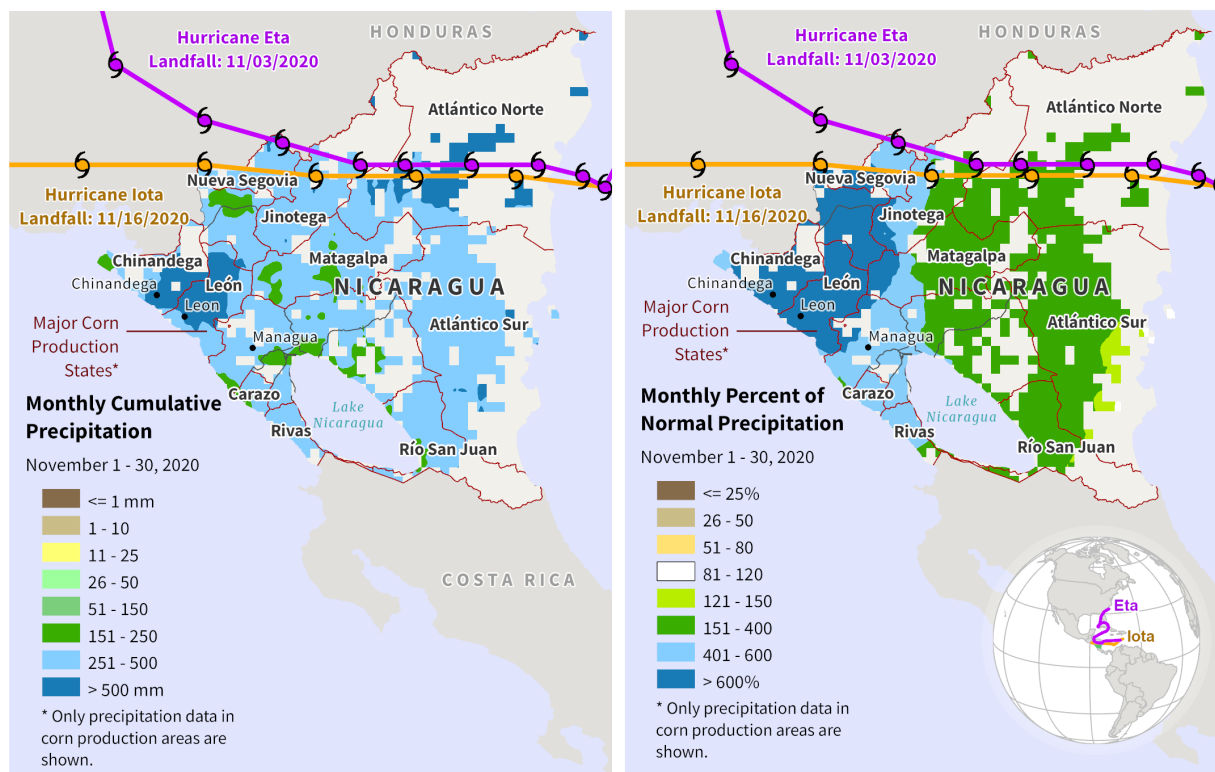


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Sources: IFPRI, SPAM 2010; CHIRPS, Monthly Cumulative Precipitation; CHIRPS, Monthly Percent of Normal Cumulative Precipitation; NOAA, NHC Tropical Cyclone Best Track

Figure 13. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Nicaragua Rice Production Areas during November 2020. Only precipitation data in major rice production areas are shown.

Nicaragua: Heavy Precipitation in Corn Production Areas



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Sources: IFPRI, SPAM 2010; CHIRPS, Monthly Cumulative Precipitation; CHIRPS, Monthly Percent of Normal Cumulative Precipitation; NOAA, NHC Tropical Cyclone Best Track

Figure 14. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Nicaragua Corn Production Areas during November 2020. Only precipitation data in major corn production areas are shown.

Guatemala – Crop Calendar

Figure 15. Guatemala Crop Calendar for Corn, Rice, and Sorghum.

Guatemala: Heavy Precipitation in Corn Production Areas

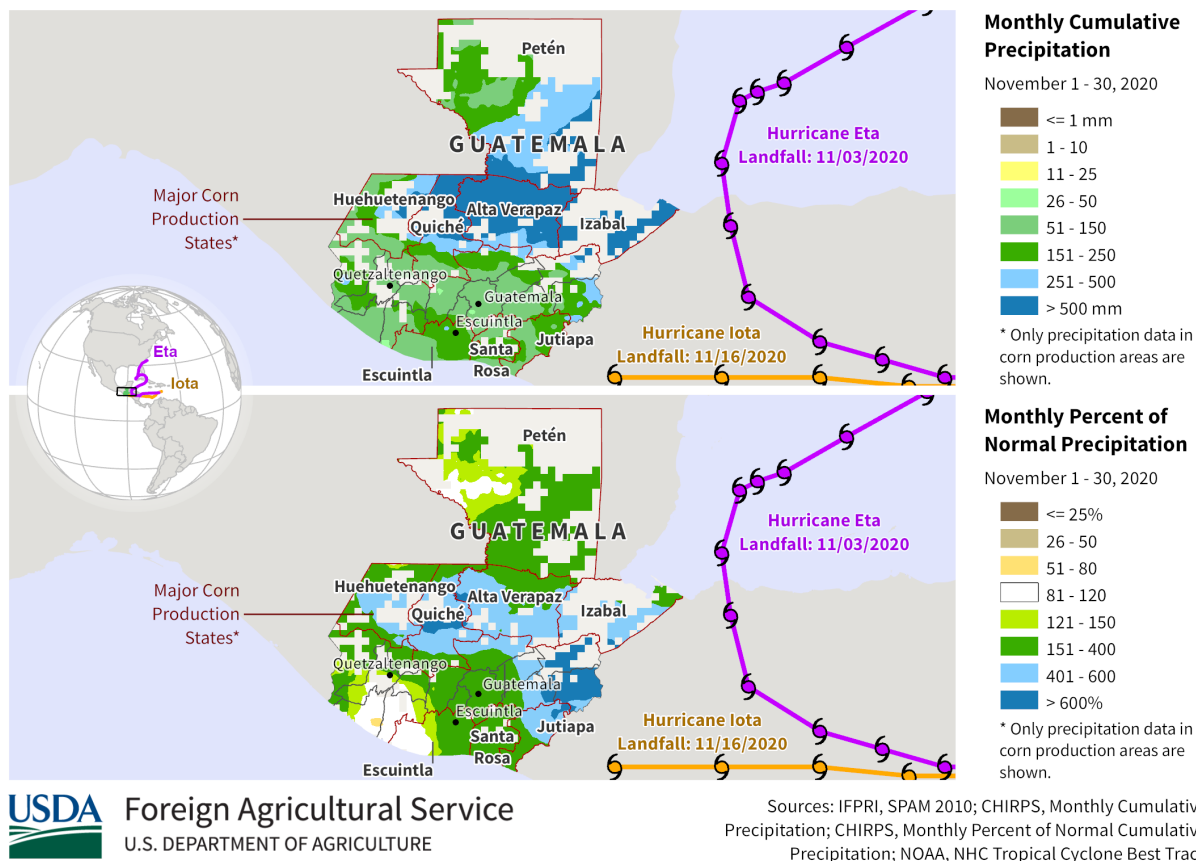


Figure 16. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Guatemala Corn Production Areas during November 2020. Only precipitation data in major corn production areas are shown.

Guatemala: Heavy Precipitation in Rice Production Areas

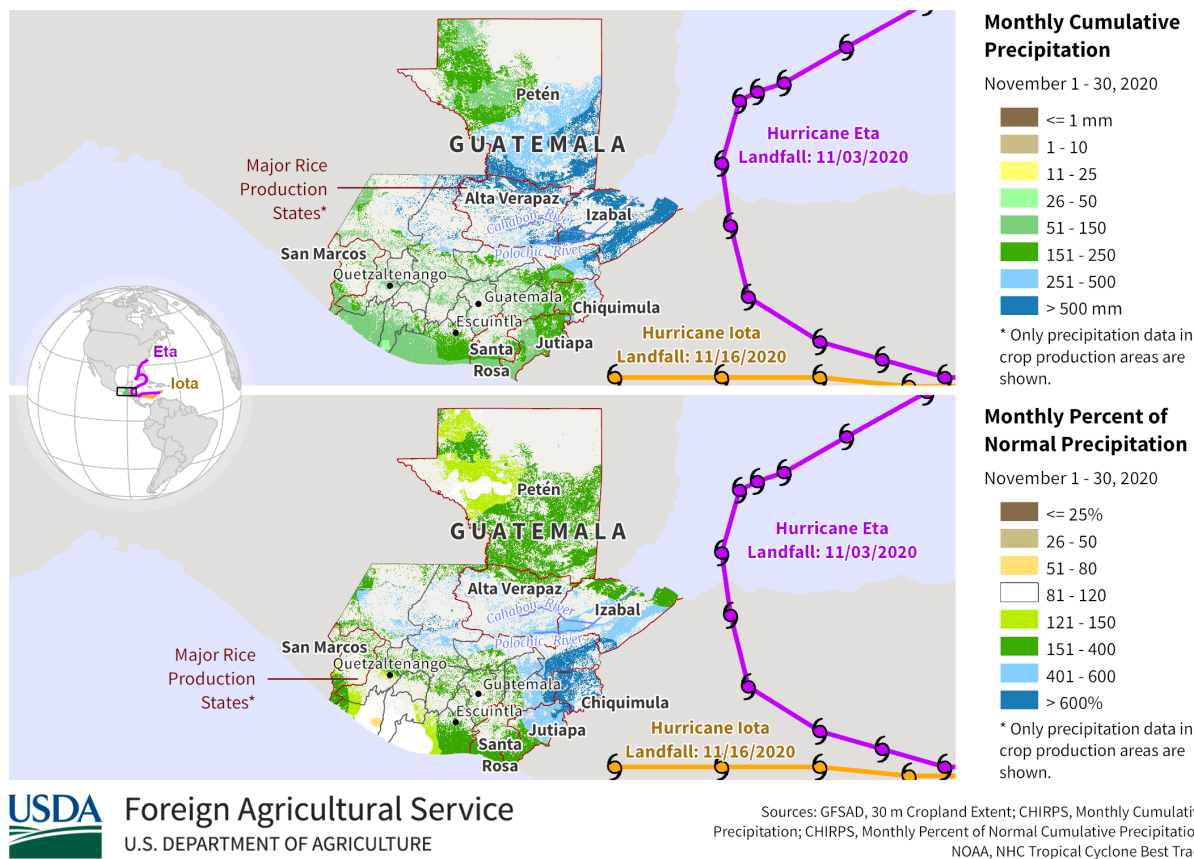
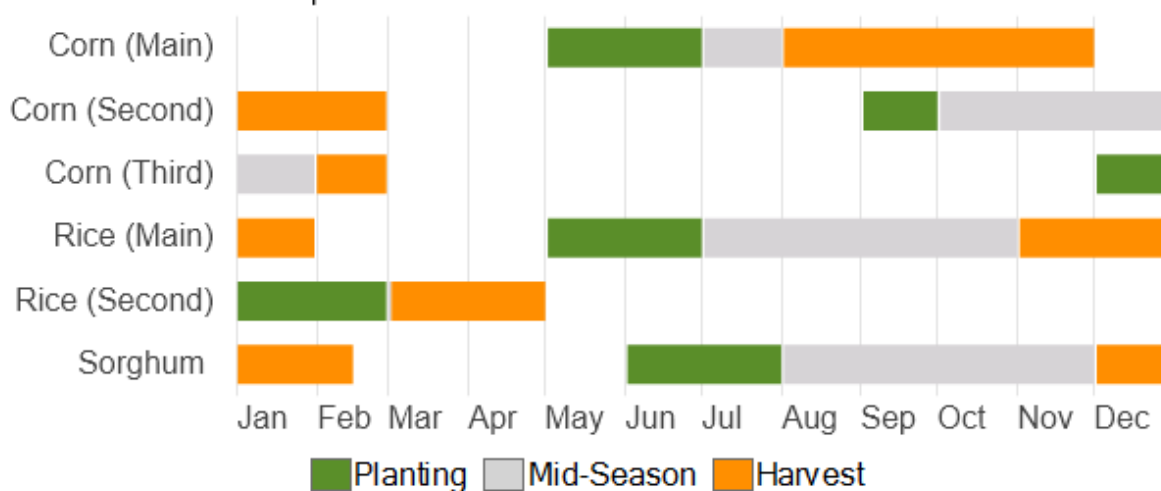


Figure 17. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major Guatemala Rice Production Areas during November 2020. Only precipitation data in major agricultural production areas are shown, with major rice production states outlined in brown.

El Salvador – Crop Calendar



Source: FAO/GIEWS

Figure 18. El Salvador Crop Calendar for Corn, Rice, and Sorghum.

El Salvador: Heavy Precipitation in Corn Production Areas

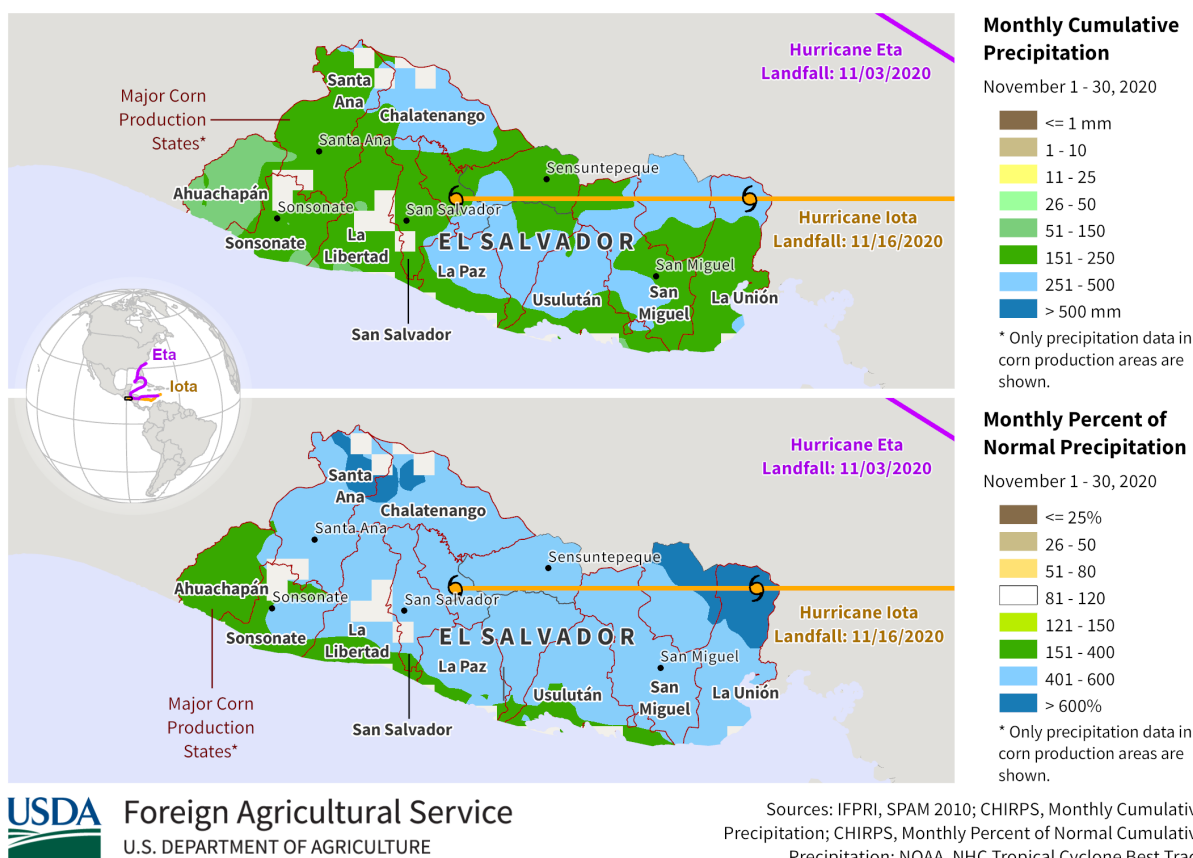


Figure 19. Monthly Cumulative Precipitation and Monthly Percent of Normal Precipitation in Major El Salvador Corn Production Departments during November 2020. Only precipitation data in major corn production areas are shown.

Author contact information:

Ifeoma Collins
ifeoma.collins@usda.gov

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