

County-Level Agricultural Losses from Hurricane Helene

The tropical system that would become Hurricane Helene developed into a tropical storm on September 24, 2024 in the northwest Caribbean Sea near the Yucatan Peninsula and then strengthened into a hurricane the next day as it moved northeast. It rapidly intensified, attaining Category 4 strength with 140 mph winds prior to making landfall near Perry, FL (Taylor County) on September 26. After landfall, Helene continued moving north-northeast, impacting north-central Florida and the southwestern peninsula. It weakened to a Category 2 hurricane after crossing into Georgia, and then further downgraded as it moved through the Appalachian region, affecting parts of South Carolina, North Carolina, Virginia, and Tennessee. Hurricane Helene was associated with heavy rainfall, significant storm surge, and moderate inland flooding.

Hurricane Helene affected nearly 6.2 million acres of agricultural lands across 64 counties in Florida. The annual value of agricultural production on these affected lands is estimated to be \$8.8 billion. Estimated production losses in Florida associated with Hurricane Helene are \$116.5 million (Court, Qiao, Koeneke, & McDaid, 2025). The estimated losses vary across counties as illustrated in Figure 2. The highest estimated losses are concentrated in areas with extensive, high value agricultural production and/or regions exposed to the most intense weather conditions.

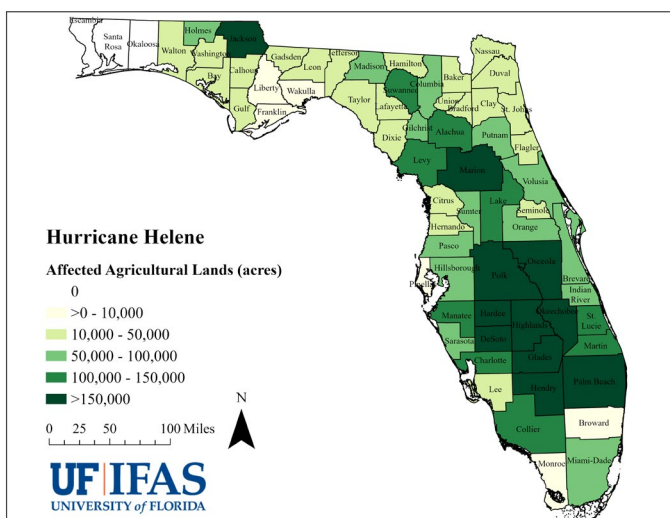


Figure 1. Estimated acreage of affected agricultural lands due to Hurricane Helene in each county of Florida.

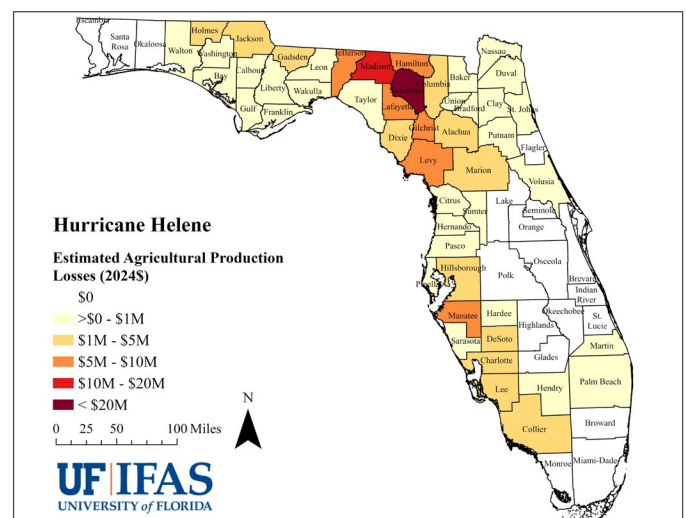


Figure 2. Estimated agricultural losses (2024\$) due to Hurricane Helene in each county of Florida.



Table 1. Estimated county-level affected acreage, value of annual production on affected lands (2024\$, thousands), and estimated agricultural production losses (2024\$, thousands) due to Hurricane Helene.

County	Affected Agricultural Lands (Acres)	Value of Annual Production (2024\$, Thousands)	Estimated Agricultural Production Losses (2024\$, Thousands)	County	Affected Agricultural Lands (Acres)	Value of Annual Production (2024\$, Thousands)	Estimated Agricultural Production Losses (2024\$, Thousands)
Alachua	124,870	\$94,148	\$2,657	Lee	41,490	\$102,436	\$1,334
Baker	12,865	\$17,402	\$374	Leon	13,820	\$6,600	\$202
Bay	24,548	\$5,177	\$103	Levy	146,945	\$131,061	\$6,452
Bradford	25,457	\$22,792	\$493	Liberty	6,142	\$3,480	\$114
Brevard	93,949	\$56,632	\$-	Madison	98,070	\$127,073	\$15,680
Broward	5,307	\$45,346	\$-	Manatee	119,770	\$507,357	\$6,444
Calhoun	35,916	\$28,453	\$789	Marion	222,615	\$155,708	\$3,038
Charlotte	118,416	\$117,418	\$3,615	Martin	145,239	\$216,921	<\$100
Citrus	29,686	\$11,005	\$219	Miami-Dade	55,127	\$914,165	\$-
Clay	15,851	\$8,161	\$158	Monroe	<100	\$3,460	\$-
Collier	108,809	\$566,656	\$2,103	Nassau	18,753	\$14,868	\$304
Columbia	63,530	\$52,838	\$2,145	Okeechobee	323,536	\$273,527	\$-
DeSoto	224,315	\$222,009	\$2,301	Orange	76,192	\$268,807	\$-
Dixie	29,031	\$13,900	\$1,683	Osceola	457,212	\$104,352	\$-
Duval	14,002	\$14,556	\$325	Pasco	82,782	\$51,765	\$763
Flagler	28,094	\$21,274	\$-	Palm Beach	430,637	\$1,142,944	<\$100
Franklin	135	\$468	<\$100	Pinellas	533	\$2,138	<\$100
Gadsden	29,521	\$81,902	\$2,262	Polk	285,690	\$234,262	\$-
Gilchrist	66,728	\$99,873	\$5,427	Putnam	52,341	\$52,533	\$268
Glades	255,095	\$139,832	\$-	Sarasota	67,863	\$64,887	\$144
Gulf	28,462	\$2,493	<\$100	Seminole	20,252	\$25,169	\$-
Hamilton	46,641	\$58,855	\$6,852	St. Lucie	106,023	\$145,003	\$-
Hardee	227,543	\$224,432	<\$100	St. Johns	19,733	\$52,624	<\$100
Hendry	435,951	\$616,803	<\$100	Sumter	95,073	\$60,215	\$667
Hernando	34,398	\$26,705	\$523	Suwannee	128,073	\$266,870	\$25,104
Highlands	331,428	\$245,324	\$-	Taylor	19,448	\$4,561	\$505
Hillsborough	87,540	\$251,398	\$1,735	Union	23,896	\$14,093	\$390
Holmes	67,044	\$46,853	\$1,072	Volusia	58,111	\$190,503	<\$100
Indian River	71,157	\$69,402	\$-	Wakulla	5,697	\$4,168	\$181
Jackson	163,918	\$125,427	\$3,955	Walton	17,966	\$18,380	\$370
Jefferson	44,880	\$54,121	\$6,688	Washington	36,850	\$17,956	\$386
Lafayette	40,988	\$81,899	\$8,378	Total	6,172,481	\$8,804,696	\$116,494
Lake	110,519	\$203,259	\$-	<i>Note: Losses less than \$100,000 are represented as '<\$100' in the table.</i>			

Reference

Court, C. D., Qiao, X. Koeneke, R., & McDaid, K. (2025). Estimated Agricultural Losses Resulting from Hurricane Helene. UF/IFAS Economic Impact Analysis Program, Food and Resource Economics Department, University of Florida.