



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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HAWAII

HIZ003>004-007>008

Kauai Leeward - Kauai Mountains - Oahu North Shore - Oahu Koolau

01	0000HST	0	0	Drought
30	2359HST			

Trade winds prevailed throughout the entire month of June, at mostly light to moderate intensities. Trade wind showers occurred across the region on a consistent basis, but rainfall totals were generally light statewide. The lack of significant rains over portions of the islands of Hawaii and Maui helped worsen an ongoing rainfall deficit that can be traced back to the 1997/98 El Nino event.

Maui County

Dry conditions persisted over most areas of Maui County during June. The central valley of Maui and the Makawao upslope region had been especially dry, with three gages in the area (Waikapu Country Club, Kihei, and Pukalani) recording zero rainfall through the month, and the gages at Kula and Ulupalakua recording only 0.01 and 0.03 of an inch, respectively. The persistence of dry conditions in this area has forced local government to place mandatory restrictions on water use. Conditions were better over windward areas of Maui where rainfall totals were 69 and 87 percent of average. The three gages spread across the islands of Molokai and Lanai all reported below average rainfall as well.

Island of Hawaii

June was relatively dry for the island of Hawaii. The gage at Glenwood was the only site to report above average rainfall (7.83 inches, 107 percent of average). The remaining sites were mainly in the 50 to 75 percent of average range. The Kau region was very dry, with totals of only 9 and 15 percent of average recorded at Pahala and Kapapala Ranch, respectively. The Kamakoa gage in leeward Kohala showed the lowest rain total at 0.01 of an inch (3 percent of average). Although June was relatively dry for the island, year-to-date totals remained at, or above, average for most of the sites in the Hilo and Puna areas due to the very wet conditions experienced during January through mid-April.

The following list contains rainfall statistics for selected locations from Maui and the Island of Hawaii. The first column is the observed rainfall for June. The second column is the 30-year average for that location, while the third column lists the percent of average rainfall for the month of June. The fourth and fifth columns are the year-to-date totals and the year-to-date percents of average, respectively.

	June 99	Avg.	% Avg	YTD	YTD % Avg
Maui					
Kahului Airport	0.09	0.3	30	6.55	52
Hana	2.64	3.8	69	N/A	N/A
Haiku	2.85	3.4	84	N/A	N/ A
Kihei	0.00	0.1	0	2.13	2 2
Lahainaluna	0.15	0.2	75	4.11	34
Wailuku	0.25	0.4	63	7.13	4 1
 Island of Hawaii					
Hilo Airport	1.47	6.2	24	68.50	105
Pahala	0.20	2.2	9	12.34	40
Honaunau	2.87	7.0	41	11.30	35
Kamuela (Upper)	2.24	3.0	75	31.14	98
Glenwood	7.83	7.3	107	122.19	136
Laupahoehoe	3.30	6.2	53	62.11	75

In Upcountry Maui, the Board of Water Supply declared a warning stage in June, which requires a mandatory 10 percent cut in water consumption for all non-agricultural users. (Agricultural users are allowed a 30-day grace period to make critical decisions about when, or if, to sell livestock or plant crops.)

Ranchers and farmers in Kula and Ulupalakua in Maui are reducing their herds and crops to cope with the current drought, and are also doing so in anticipation of a mandatory 10-percent cut in water consumption that is likely to take place by the middle of July. Ulupalakua Ranch official Sumner Erdman said the drought has been the worst in its 75-year history of recording rainfall. Erdman said the ranch, which manages about 23,000 acres, will probably lose about \$350,000 to \$500,000 in the next three to five years due to the drought.

In the Hamakua District on the island of Hawaii, some residents are required to reduce water use by 25%. This includes the



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Kukuihaele and Kapulena communities. Residents in the North Kohala towns of Makapala, Keokea, and Niulii were told to reduce their water consumption by 10%.

Island of Hawaii ranchers, who say some cattle are dying in the worst drought in years, are reducing the size of their herds because of parched pasture lands. Conventional wisdom holds that the Big Island's drought of 1998 faded after threatening vegetable and flower farmers for months. But it never ended for ranchers. Robby Hind, livestock manager for the 225,000-acre Parker Ranch that covers parts of the South Kohala and Hamakua districts in the northern parts of the Big Island, has reduced its livestock from 50,000 cattle to 35,000 head over the past four years and plans to reduce further to 30,000 because of the ongoing drought. Pono von Holt, owner of the 12,000-acre Ponoholo Ranch, has cut his herd from 7000 to about 5000 and is anticipating significant financial losses next year when the books close on the current ranching cycle. He has been forced to sell heifers for slaughter on the Mainland instead of keeping them for breeding stock. On the south side of the island, in the Kau District, the 14,000-acre Kahuku Ranch is spending hundreds of dollars a week to haul water to keep cows and calves alive after two years of drought, according to Carl "Soot" Bredhoff, the ranch manager for 17 years. Bredhoff said rain for the first six months of the last two years measured a total of 18.17 inches, versus about 59 inches recorded for the first six months in the two previous years combined.

The drought is also causing extreme fire-hazard conditions in Upcountry Maui and in the northern and southern sections of the island of Hawaii.