



# Hawaii Weekly Crop Weather Report

National  
Agricultural  
Statistics  
Service

Week ending: June 10, 2007

In Cooperation with the Hawaii Department of Agriculture

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## Big Island Mayor Declares State of Emergency



### Weather Review

Weather conditions had a variable effect on agriculture during the week ending Sunday, June 10. High pressure to the north and low pressure to the south resulted in a week of light to moderate trade winds with mostly light, passing showers. Most of the shower activity was limited to the northern islands during the first half of the week and shifted to the southern half of the State during the weekend. These passing showers occurred in windward areas and the higher elevations with some lighter amounts being blown over to the leeward side of the islands. Conditions were particularly dry on the Big Island where temperatures reached new daily highs on Monday and Wednesday. The Mayor of the County of Hawaii declared a State of Emergency on June 5 due to the continuing dry weather. A voluntary 10-percent reduction in water usage was in effect for the districts of North and South Kohala, Hamakua, and Ka`u. A mandatory 25-percent reduction in water usage was in effect for the following specific areas of the Big Island: Waimea Town to Kawaihae, Upper Pa`auilo, and Ahualoa. In addition, the State Department of Agriculture continued to place users of the Honokaa-Paauilo irrigation system

under a mandatory 30-percent water conservation notice due to damage sustained from the October 15, 2006 earthquake. Users of the Waimea irrigation system were asked to voluntarily cutback irrigation water usage by 10 percent. Overall, recent weather conditions have had a variable effect on agriculture. Non-irrigated crops, those dependent on natural rainfall, were in fair to poor condition. Crops located in windward areas were faring better than those in the drier leeward areas of the island. Irrigated crops were in fair to good condition. Abundant sunshine and adequate irrigation was ensuring normal growth. Spraying for insects and disease continued on a regular schedule.

### Hawaii County

Weather conditions continued to be very dry for the first few days of the week. Hilo experienced record high temperatures on Monday (88 degrees) and Wednesday (88 degrees) as light winds and mostly clear skies led to sunny and warm conditions. On Tuesday, the Mayor declared a state of emergency due to drought conditions occurring in many parts of the island. Most gauges recorded less than half of the normal monthly rain in May, and many non-irrigated crops and livestock operations were being

stressed by the low moisture levels. Water conservation notices were issued in the area from Kawaihae through Waimea over to Paauilo in the Hamakua district. Water flow into Waimea reservoirs has slowed or stopped due to the lack of rainfall and stock water supplies were at low levels. Some relief did occur on Wednesday night and into Thursday over the Puna and Hilo districts as light, scattered showers fell. Convective showers over Kona slopes also occurred as well as some misty conditions in the Waimea area. But sunny conditions returned Friday. Some windward areas received showers over the weekend, but daily totals were less than 0.5 inches. The showers did little to fill stock ponds or restore flow to streams.

### Maui County

Days were mostly sunny and warm during the week. Afternoon trade wind showers occurred in some windward coastline areas. Additional showers moved from the windward side of Haiku to the central section of the island on Wednesday. Leeward sections were dry, and the soil was not able to support any re-growth for pastures. The lack of precipitation over the past several weeks increased the amount of irrigation required for most crops.

Mark Hudson, Director  
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## **Honolulu County**

Days were mostly sunny and dry with high temperatures, light trade winds, and passing showers. Windward crop growing areas experienced mostly sunny days with occasional overcast skies and light to moderate showers. The Waimanalo irrigation system continued its "modified" Phase I plan which calls for irrigation water distribution to be limited to Mondays through Fridays, 24-hours each day; with no water service on weekends. A highly encouraged voluntary 10 percent water use cutback was still in effect. Leeward and central Oahu crop growing areas remained mostly dry for the week. Temperatures were moderate to high with trade winds providing some cooling. Most fruit and vine crops made good progress. Leafy crops made fair progress with heavy irrigation necessary to ensure normal crop development. Spraying was stepped up for the increased insect populations.

## **Kauai County**

Weather conditions were good for crop progress during the week. Moderate showers fell in the night and early morning hours for most of the week lifting some pressure from the dry conditions for many farm operations. The island wide rains provided much needed soil moisture for most field crops and pastures. Days continued sunny and dry with high temperatures and a mix of passing clouds and showers. Orchards and fruit crops were in good condition. Leafy crops made good progress. Reservoir and ditch levels increased during the week allowing for regular irrigation of crops dependent on these resources. Spraying for insect and disease control was stepped up as the earlier dry weather conditions caused an increase in insect populations.



## **Agricultural Highlights**

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### **Fruits**

#### **Banana**

Orchards in eastern sections of the island of Hawaii were in fair to good condition. Mostly sunny days facilitate field operations, but soil moisture was declining. Banana Bunchy Top virus incidences remain isolated in the Puna and Kona areas. Oahu orchards were in fair to good condition. Fields in windward areas remained in fair condition. Banana Bunchy Top virus continued to affect fields. Leeward and central Oahu fields made good progress, but were also slowed by light Banana Bunchy Top virus damage. Irrigation remained at moderate to heavy levels during the week due to the dry days.

#### **Papaya**

Big Island orchards were in fair to good condition. Soil moisture decreased and additional rain is needed to raise soil moisture to more satisfactory levels. Mostly sunny days dominated the week, but some light showers were beneficial. Fruit development and ripening were good on Oahu. However, mealy bugs and ring spot virus in some fields kept production lower than anticipated. Orchards on Kauai continued to make fair to good progress during the week. Spraying to contain the insect population was stepped up to contain the increased infestation.

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### **Vegetables**

#### **Head Cabbage**

The crop in the Big Island's Waimea area was in generally good condition. Light insect damage on outer leaves was noticed. Irrigation ensured normal crop progress. The Volcano crop was experiencing slow progress due to dry conditions. Maui's crop continued to make

good progress. Warm temperatures stressed some lower elevation fields, but generally those fields were in good condition. Insect pressure and damage was light, but elevated in some fields. Head size was large. On Oahu, insect infestation was at light levels and mostly under control. New plants were in good condition.

#### **Sweet Corn**

Young planting in eastern sections of Hawaii County made slow progress. Newly seeded beds have gaps in the rows due to seedlings dying for lack of moisture. Light showers during the week provided some relief. Beneficial weather conditions allowed the plants to make good progress in central Oahu fields. Windward fields made good progress during the week and are expected to be harvested at moderate to heavy levels.

#### **Cucumbers**

Pickings from most Oahu fields were at moderate to heavy levels and anticipated to continue increasing as plants were in active harvest. Melon fly infestation and light pickle worm damage has affected crop yields in some areas during the week. Irrigation levels remained heavy as the dry weather continued in most crop growing areas.

#### **Dry Onions**

Maui's crop benefited from the dry weather and regular irrigation. Growth and development was good in most fields, although the warm temperatures have started to detrimentally affect some fields by slowing growth. Quality of harvested bulbs has reportedly been very good.

## Monthly Trend for Selected Stations

Comparison of 2007 cumulative monthly and annual totals with average monthly totals for selected stations. <sup>1/</sup>

Station name		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<i>Inches</i>														
<b>Island of Hawaii</b>														
1. Kamuela	2007	1.4	3.7	1.3	0.8	0.4	*	0.0	0.0	0.0	0.0	0.0	0.0	7.6
	Average	6.6	6.0	7.9	6.9	4.0	2.2	3.7	4.1	2.2	3.3	5.8	7.3	60.0
2. Kealahou	2007	2.1	2.5	1.7	1.6 <sub>p</sub>	3.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	11.5 <sub>p</sub>
	Average	4.7	3.4	5.6	6.2	7.7	8.2	8.7	8.3	8.2	6.2	4.4	3.4	75.0
3. Laupahoehoe	2007	6.7	12.3	6.0 <sub>p</sub>	1.2 <sub>p</sub>	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	27.5 <sub>p</sub>
	Average	13.5	13.2	19.5	18.9	11.7	6.2	10.0	12.4	6.9	9.3	13.6	14.8	150.0
4. Mt. View	2007	18.2	14.1	11.3	10.3	3.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	58.3
	Average	14.1	13.6	19.6	18.0	13.1	9.4	12.8	14.6	10.7	12.1	15.8	16.2	170.0
5. Pahala	2007	1.7	0.4	4.2	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
	Average	7.7	6.1	6.3	5.0	3.8	2.2	2.1	3.3	3.4	4.2	5.5	5.4	55.0
6. Pahoa	2007	12.2	13.4	7.0	7.7 <sub>p</sub>	2.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	44.1 <sub>p</sub>
	Average	13.9	10.9	10.5	13.9	10.5	7.1	9.8	10.6	9.2	11.5	13.3	14.6	140.0
<b>Island of Maui</b>														
7. Hana	2007	1.3	4.0 <sub>p</sub>	2.6 <sub>p</sub>	4.1	2.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	15.0 <sub>p</sub>
	Average	8.5	5.7	9.1	7.5	5.9	4.1	5.9	5.8	6.1	7.3	8.0	6.1	80.0
8. Kula	2007	0.4	1.8	2.4	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.6
	Average	3.5	3.0	2.5	1.6	1.1	0.8	0.8	0.8	1.1	1.5	2.3	3.3	22.3
9. Lahainaluna	2007	0.2	*	0.2	0.1	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.5
	Average	4.4	2.7	2.4	1.7	0.7	0.2	0.3	0.6	0.6	1.0	2.0	3.4	20.0
10. Wailuku	2007	0.5	1.3	3.5	1.8	0.2	*	0.0	0.0	0.0	0.0	0.0	0.0	7.2
	Average	5.2	3.8	3.6	3.0	1.2	0.4	0.6	0.7	0.6	1.7	2.9	4.3	28.0
<b>Island of Oahu</b>														
11. Kahuku	2007	2.9	1.4	4.2	0.9	1.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6
	Average	6.3	4.2	5.3	4.0	2.5	1.9	2.2	2.6	2.2	4.0	4.6	5.3	45.0
12. Mililani	2007	4.3	2.5	3.7	2.0	1.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	15.1
	Average	6.4	4.9	4.9	4.0	2.5	1.7	2.1	2.4	1.7	3.7	4.5	6.2	45.0
13. Waianae	2007	2.2	0.3	2.7	0.6	1.2	*	0.0	0.0	0.0	0.0	0.0	0.0	7.0
	Average	3.8	2.3	2.5	1.6	0.7	0.3	0.3	0.7	0.7	1.8	2.0	3.3	20.0
14. Waimanalo	2007	2.3	1.3	3.2 <sub>p</sub>	1.9	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	9.6 <sub>p</sub>
	Average	6.8	4.6	3.6	3.2	3.2	1.5	1.6	1.5	2.0	3.7	5.6	5.5	42.8
<b>Island of Kauai</b>														
15. Anahola	2007	3.2	3.8	4.5	2.4	2.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	17.1
	Average	6.8	4.4	6.0	4.6	3.2	1.6	2.5	2.5	2.0	5.1	5.4	5.9	50.0
16. Hanalei	2007	4.9	10.5	6.5	4.5	1.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	29.8
	Average	11.8	9.4	13.4	12.2	9.3	6.5	9.8	8.7	6.9	8.5	10.2	12.0	118.7
17. Omao	2007	2.8 <sub>p</sub>	4.6	4.1	2.0	1.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0	17.1 <sub>p</sub>
	Average	6.9	4.5	5.5	5.2	4.2	3.4	4.7	4.6	3.8	4.7	5.9	6.7	60.0

<sup>1/</sup> Rainfall stations were selected from the National Weather Service's Hydronet system of automated rain gauges. All data has not been quality controlled to date, and therefore is not certified by the National Weather Service.

M = Missing. p = Partial or incomplete. e = Estimated. \* = More than zero, but less than .05 inches of rain.

Precipitation for week ending June 10, 2007  
Daily, weekly, and year-to-date precipitation totals for selected Hawaii stations.<sup>1/</sup>

Station name and identification number	24-Hour totals at 8 a.m.							Weekly total	Jan. 1 to date
	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
<i>Inches</i>									
<b>Island of Hawaii</b>									
1. Kamuela (HI86)	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	7.59
2. Kealahou (HI84)	0.12	0.00	0.07	0.02	0.03	0.02	0.00	0.26	11.51
3. Laupahoehoe (HI80)	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	27.49
4. Mt. View (HI81)	0.00	0.00	0.00	0.14	0.26	0.34	0.10	0.84	58.27
5. Pahala (HI85)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.12
6. Pahoa (HI83)	0.00	0.01	0.00	0.30	0.22	0.41	0.21	1.15	44.13
<b>Island of Maui</b>									
7. Hana (HI61)	0.15	0.06	0.00	0.26	0.31	0.03	0.01	0.82	14.95
8. Kula (HI65)	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.05	5.58
9. Lahainaluna (HI60)	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.03	0.50
10. Wailuku (HI66)	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	7.21
<b>Island of Oahu</b>									
11. Kahuku (HI09)	0.00	0.32	0.25	0.06	0.00	0.24	0.02	0.89	11.55
12. Mililani (HI14)	0.10	0.42	0.14	0.32	0.00	0.26	0.04	1.28	15.06
13. Waianae (HI17)	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03	6.96
14. Waimanalo (HI13)	0.08	0.47	0.00	0.00	0.00	0.00	0.00	0.55	9.63
<b>Island of Kauai</b>									
15. Anahola (HI48)	0.05	0.23	0.08	0.07	0.01	0.00	0.04	0.48	17.12
16. Hanalei (HI45)	0.31	0.84	0.45	0.31	0.02	0.06	0.05	2.04	29.82
17. Omao (HI51)	0.29	0.75	0.23	0.55	0.12	0.06	0.06	2.06	17.14

<sup>1/</sup> Rainfall stations were selected from the National Weather Service's Hydronet system of automated rain gauges. All data has not been quality controlled to date, and therefore is not certified by the National Weather Service.

M = Missing. p = Partial or incomplete. e = Estimated. \* = More than zero, but less than .05 inches of rain.

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