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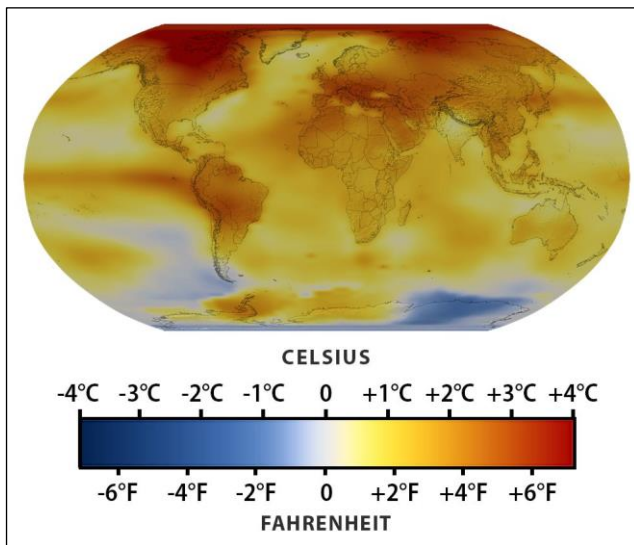
Federal Agricultural Assistance for Extreme Heat

The National Aeronautics and Space Administration (NASA) reported June 2023 to May 2024 as 12 consecutive months of record-high monthly average global surface temperatures (**Figure 1**). The U.S. Global Change Research Program’s Fifth National Climate Assessment reported, “it is very likely that heatwaves will increase in frequency, severity, and duration as warming continues.”

Extreme heat conditions can impact agricultural productivity (e.g., decrease commodity yields and increase livestock deaths) and farm profitability. For example, one peer reviewed study found that two days of relatively high temperatures reduced yields in many non-irrigated U.S. row crops. The U.S. Department of Agriculture (USDA) administers programs designed to offer financial assistance to U.S. agricultural producers recovering from production losses, including those due to extreme heat conditions.

Figure 1. Global Surface Temperature Anomalies (NASA), June 2023-May 2024

1951-1980 reference period for comparison



Source: NASA, “Twelve consecutive months of global surface temperature records: June 2023 - May 2024,” July 11, 2024.

Note: For more information about data represented in the image, see NASA, Goddard Institute for Space Studies.

This In Focus provides an overview of USDA programs available to assist agricultural producers in recovering from extreme heat conditions. It does not discuss other programs for community water, housing, or food assistance offered by USDA or other federal agencies. For more information on other heat-related disaster assistance, see CRS Report

R46873, *Emergency Response to Extreme Heat: Federal Financial Assistance and Considerations for Congress*.

Definition of Extreme Heat

Federal agencies define *extreme heat* in different ways and use a combination of factors that may include temperature, relative humidity, event duration, and historical trends. An extreme heat event is often defined relative to a region’s climate. Extreme heat differs from drought, which generally refers to a deficiency of precipitation over an extended period of time resulting in a water shortage. For information on federal drought response programs, see CRS Report R46911, *Drought in the United States: Science, Policy, and Selected Federal Authorities*.

Summary of Selected USDA Programs

USDA insurance and direct payment programs may financially compensate agricultural producers for a portion of lost production caused by extreme heat. Several such programs are permanently authorized and receive indefinite mandatory funding. In general, to receive USDA agricultural assistance, certain eligibility requirements must be met. For the insurance programs, eligible producers must purchase a policy prior to an event and may be required to pay an administrative fee, premium, or both. For the direct payment programs, eligible producers are not required to sign up prior to the qualifying event or pay to participate.

Federal Crop Insurance Program (FCIP)

FCIP offers farmers the opportunity to purchase insurance against financial losses caused by certain adverse growing and market conditions, including extreme heat. In general, FCIP offers insurance coverage for most field crops, a wide variety of specialty crops, certain types of livestock and animal products, and grazing lands. FCIP does not cover losses of livestock, dairy, or grazing lands due to extreme heat events. USDA calculates FCIP indemnities to farmers for eligible losses based on the type of FCIP policy purchased and the level of coverage selected by the producer. Annual FCIP policies must be purchased prior to a qualifying event.

Noninsured Crop Disaster Assistance Program (NAP)

With limited exceptions, producers growing commercial crops for food, fiber, or livestock consumption that are ineligible for certain crop insurance policies may apply for NAP coverage. USDA calculates NAP indemnities to farmers for eligible losses based on the type of NAP policy purchased and the level of coverage selected by the producer. Annual NAP policies must be purchased prior to a qualifying event.

Livestock Indemnity Program (LIP)

LIP may provide direct payments to eligible livestock producers for livestock deaths exceeding normal rates due to extreme heat and other qualifying losses. Eligible losses must occur during an unexpected period of abnormal weather. Technical committees in each state determine which loss conditions are eligible for LIP payments. The LIP payment rate is equal to 75% of the national average fair market value of the animal as determined by the Farm Service Agency (FSA).

Emergency Assistance for Livestock, Honey Bees, and Farm-Raised Fish (ELAP)

ELAP may provide direct payments to producers of farm-raised fish, livestock, and honey bees as compensation for losses due to disease, adverse weather, feed or water shortages, or other conditions that are not covered under LIP. Extreme heat is listed as a covered loss for farm-raised fish. FSA county committees determine whether livestock or honey bee losses due to particular extreme heat events are eligible for payments.

In the context of extreme heat, ELAP may cover farm-raised fish deaths exceeding normal rates and losses of intended fish feed. When applicable, ELAP may cover livestock grazing losses, livestock feed losses, above normal feed purchases, and additional feed delivery costs. ELAP may cover lost honey bee colonies, hives, and feed.

ELAP payments for the loss of animals or fish are equal to 75% of the average fair market value of the animal as determined by FSA. ELAP payments for feed are based on a minimum of 60% of the producer's actual costs for lost feed, feed transportation costs, and the purchase of additional feed. ELAP payments for grazing losses are based on a minimum of 60% of the lesser of the additional feed cost incurred due to the lost number of grazing days or the value of the lost grazing forage.

Ad Hoc and Supplemental Assistance

In addition to the permanent insurance and disaster assistance programs, Congress appropriated about \$13 billion in supplemental ad hoc assistance in FY2022 (P.L. 117-43) and FY2023 (P.L. 117-328) for agricultural production losses for qualifying natural disaster events in calendar years 2020, 2021, and 2022. The primary ad hoc program USDA created to administer this funding is the Emergency Relief Program (ERP). ERP payments for losses due to extreme heat have augmented payments from FCIP and NAP and compensated, to a lesser degree, individuals who did not purchase FCIP or NAP coverage.

Issues for Congress

Interest in resilience and response strategies for extreme heat conditions is growing in the agricultural sector. Congress may consider several issues relevant to USDA's agricultural assistance for extreme heat conditions. Congress may choose not to take action concerning extreme heat.

Programmatic Changes

Not all USDA disaster assistance programs cover losses due to extreme heat events. In addition to those limitations in the programs discussed above, the Tree Assistance Program (TAP) provides assistance for replanting or rehabilitating eligible trees, bushes, and vines damaged by natural disaster but not by extreme heat unless approved by the FSA deputy administrator. The Livestock Forage Disaster Program (LFP) provides financial assistance to livestock producers affected by qualifying drought and wildfire but not extreme heat.

Congress may consider whether USDA disaster assistance programs appropriately cover losses due to extreme heat and whether such losses should be treated the same by all programs or have different programmatic requirements.

Some policymakers may consider current coverage inadequate and choose to expand coverage through the existing programs discussed above. Alternatively, policymakers could explicitly require ELAP, TAP, and LFP to cover such losses. Increasing coverage and mandatory spending in these programs may require an offset under budgetary rules.

Some policymakers may deem that USDA disaster assistance programs provide too much financial assistance for extreme heat events. Congress might choose to explicitly exclude extreme heat as an eligible loss condition or otherwise make programmatic changes to reduce total outlays for extreme heat losses from some or all USDA disaster assistance programs.

Enhancing the Resilience of Agricultural Producers

USDA administers conservation programs that may help producers develop adaptation and mitigation strategies to reduce potential losses caused by disasters. In 2023, the U.S. Government Accountability Office published 13 potential options for USDA to help enhance the resilience of agricultural producers against natural disasters and reduce federal agricultural disaster exposure. Congress may evaluate the applicability of these options within the context of extreme heat.

Potential Increase in Cost

Producers may pay additional costs, such as increased input expenses, due to extreme heat. An increase in the cost of production may result in lower farm income and higher consumer prices. Energy costs are an example of input costs that may increase, particularly for livestock or commodities grown in temperature-controlled environments (e.g., poultry and hogs). As outside temperatures rise, the cost to maintain optimal temperatures may increase. Congress may consider expanding benefits under USDA programs to farmers, thereby potentially stabilizing consumer prices. Such an approach may change a farmer's market-based strategy of minimizing their input costs. In addition, higher consumer prices may offset higher production costs.

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