



North Bay Drought Webinar: Actions to Take Now

May 4, 2021



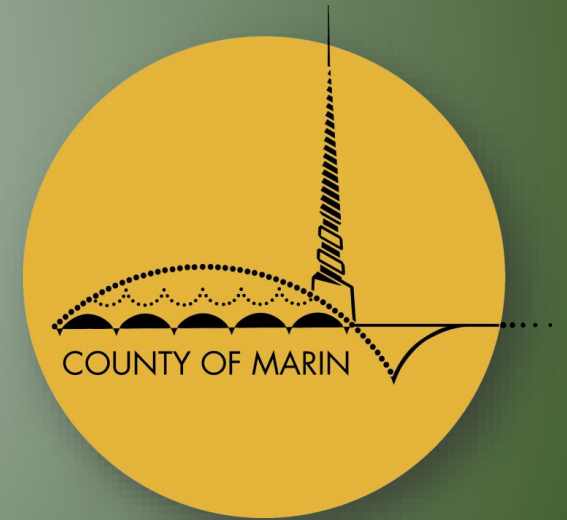
UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

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Dairy, Livestock & Rangeland



**Sonoma
Water**



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On-Farm Water Use Efficiency

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Dairy Advisor

UCCE – Sonoma, Marin, & Mendocino

The logo for UCCE (University of California Cooperative Extension) is displayed in the top right corner. It consists of the letters 'UC' stacked above 'CE', with a thin yellow horizontal line separating the two parts. The text is in a blue, serif font.

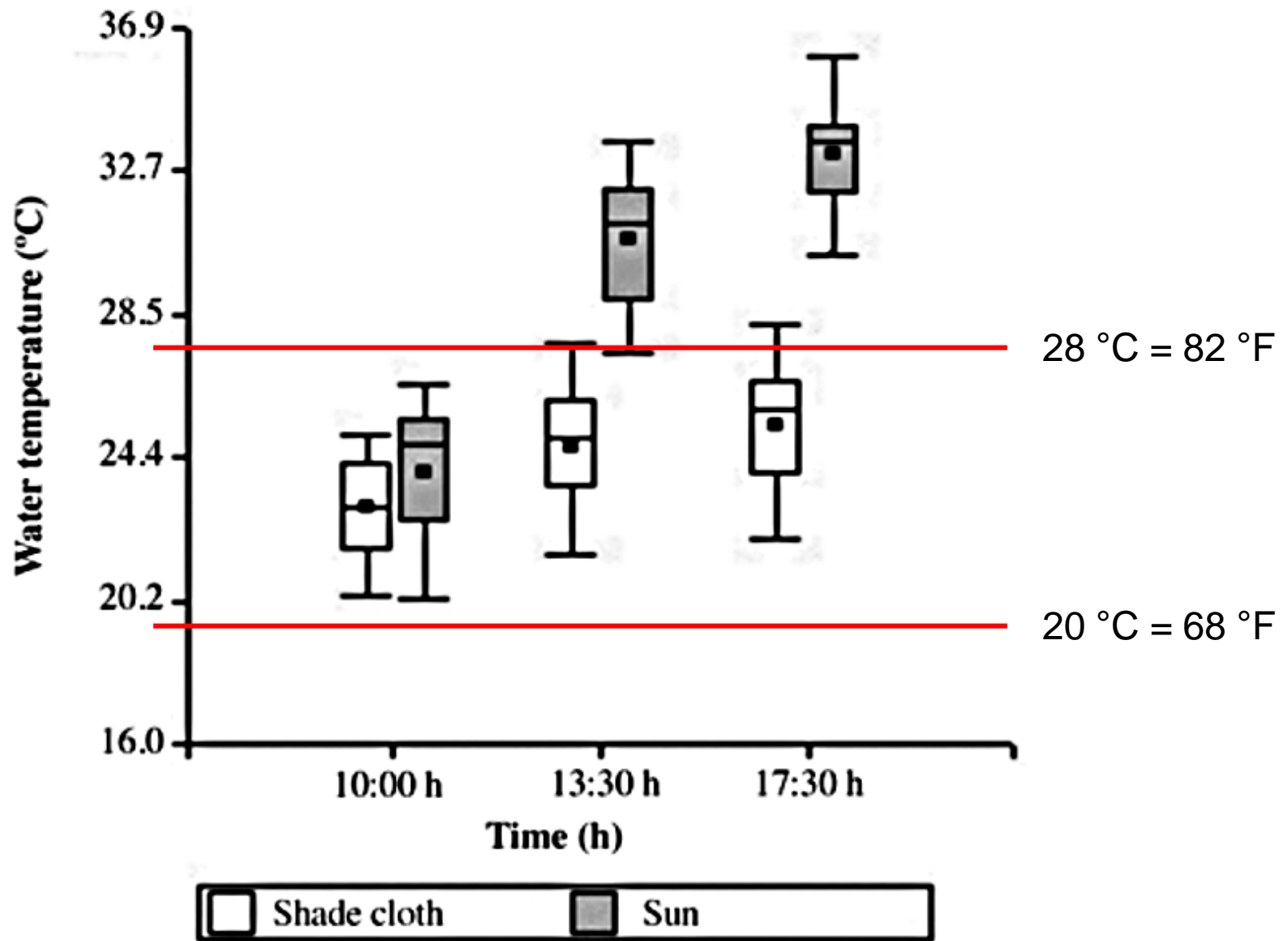
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Water Trough Maintenance

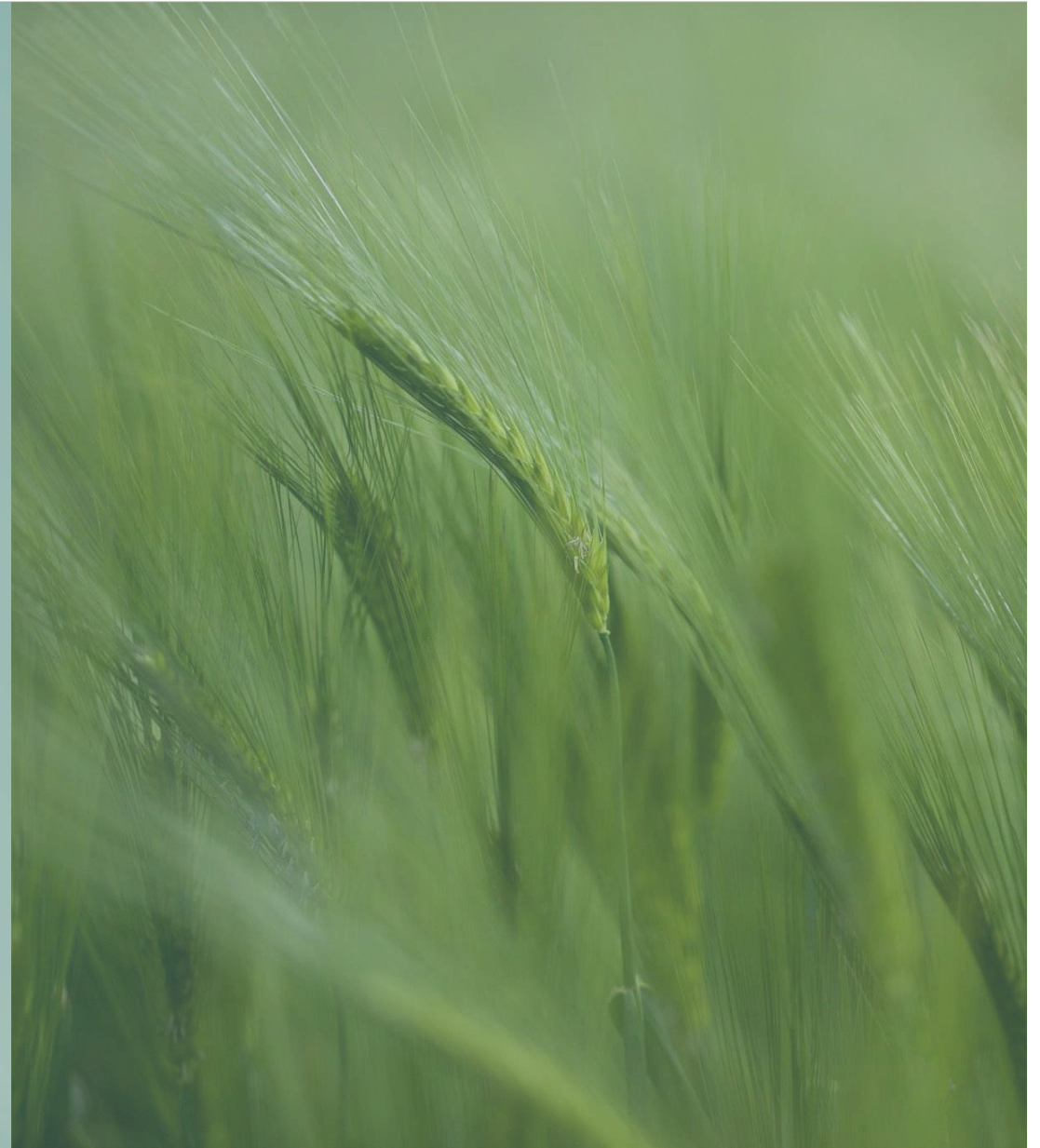
- Daily checks for leakage
- Turn off rarely used troughs
- Keep clean
- Attach water meter
- Shade





Water use in feed

- Adding water to a total mixed ration:
 - Increases sorting
 - Reduces dry matter intake
 - Greater feed temperature following feed delivery

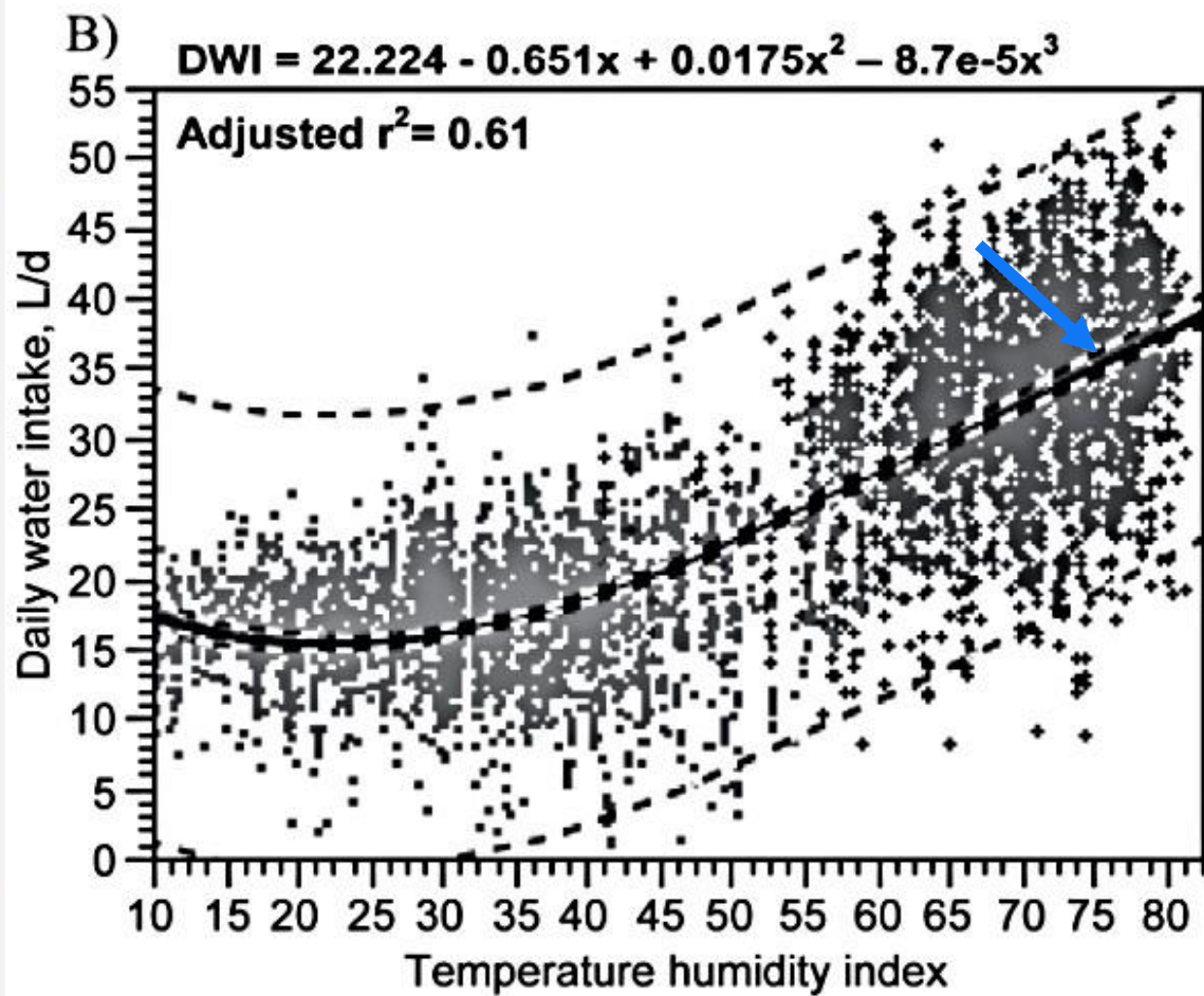


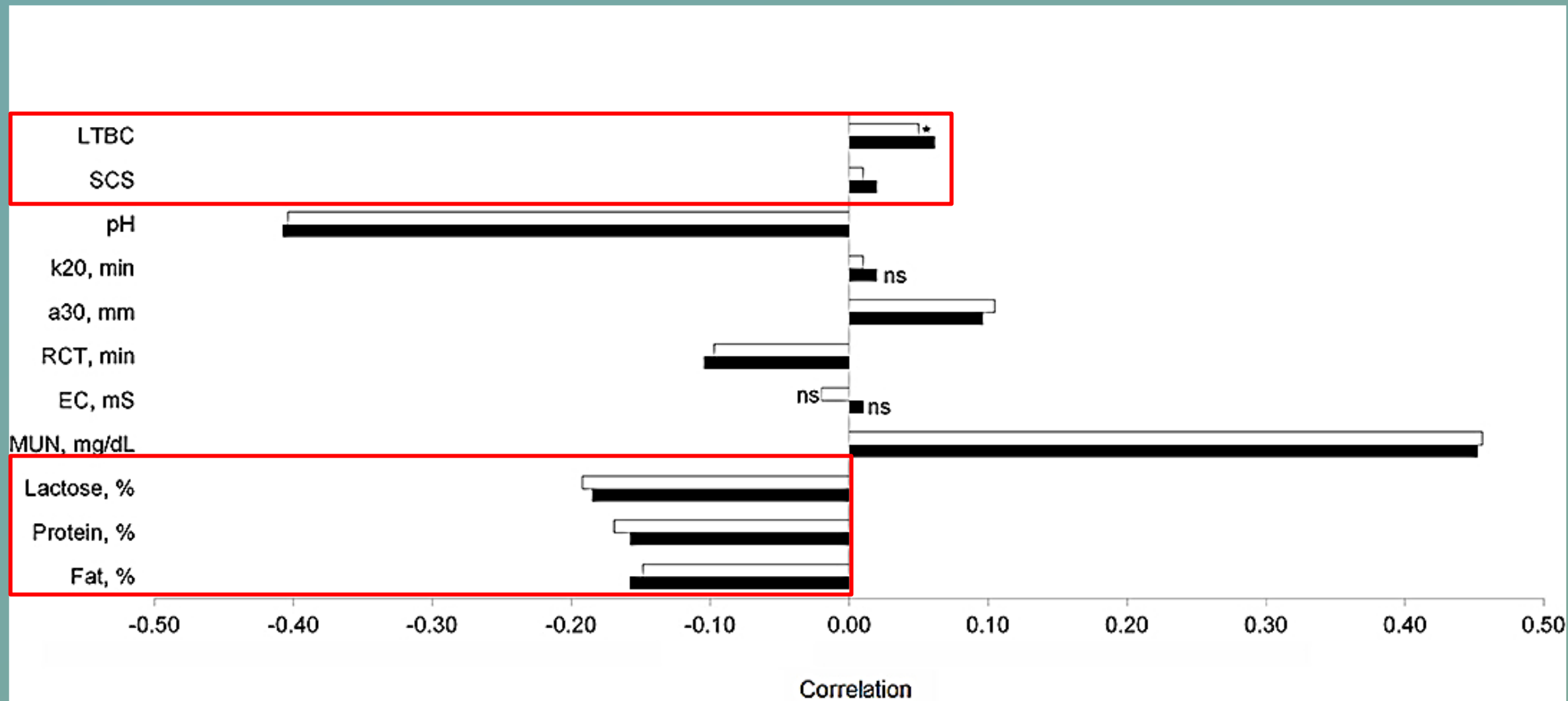


Cow Cooling

Hot cows drink more water and produce less milk and meat

Temp		Relative Humidity (%)																
F	C	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
77	25.0						72	72	73	73	74	74	75	75	76	76	77	MILD
78	25.6	NO STRESS					72	73	73	74	74	75	75	76	76	77	77	STRESS
79	26.1				72	76	73	74	74	75	76	76	77	77	78	78	79	
80	26.7		72	72	73	76	74	74	75	76	76	77	78	78	79	79	80	
81	27.2	72	72	73	73	74	75	75	76	77	77	78	78	79	80	80	81	
82	27.8	72	73	73	74	75	75	76	77	77	78	79	79	80	81	81	82	
83	28.3	73	73	74	74	75	76	77	78	78	79	80	80	81	82	82	83	SEVERE
84	28.9	73	74	75	75	76	77	78	78	79	80	80	81	82	83	83	84	STRESS
85	29.4	74	75	75	76	77	78	79	79	80	81	81	82	83	84	84	85	
86	30.0	74	75	76	77	78	78	79	80	81	81	82	83	84	84	85	86	
87	30.6	75	76	77	77	78	79	80	81	81	82	83	86	85	85	86	87	
88	31.1	75	76	77	78	79	80	81	81	82	83	84	85	86	86	87	88	
89	31.7	76	77	78	79	80	81	82	83	84	85	86	86	87	88	89	89	
90	32.2	77	78	79	79	80	81	82	83	84	85	86	86	87	88	89	90	
91	32.8	77	78	79	80	81	82	83	84	85	86	86	87	88	89	90	91	
92	33.3	78	79	80	81	82	83	84	85	85	86	87	88	89	90	91	92	
93	33.9	79	80	80	81	82	83	84	85	86	87	88	89	90	91	92	93	VERY
94	34.4	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	SEVERE
95	35.0	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	STRESS
96	35.6	80	81	82	83	85	86	87	88	89	90	91	92	93	94	95	96	
97	36.1	81	82	83	84	85	86	87	88	89	91	92	93	94	95	96	97	
98	36.7	82	83	84	85	86	87	88	89	90	91	93	94	95	96	97	98	
99	37.2	82	83	84	85	87	88	89	90	91	92	93	94	96	97	98	99	
100	37.8	83	84	85	86	87	88	90	91	92	93	94	95	97	98	99	100	
101	38.3	83	86	86	87	88	89	90	92	93	96	95	96	97	99	100	101	
102	38.9	86	85	86	87	89	90	91	92	96	95	96	97	96	99	101	102	
103	39.4	86	86	87	88	89	91	92	94	95	96	97	98	100	101	102	103	
104	40.0	85	86	88	88	90	91	93	94	95	96	97	99	100	101	103	104	
105	40.6	86	87	88	89	91	92	93	96	96	97	98	99	100	101	104	105	DEAD
106	41.1	86	88	89	90	91	93	94	95	97	98	99	101	102	103	105	106	CATTLE
107	41.7	87	88	89	91	92	94	95	96	98	99	101	102	103	105	106	107	
108	42.2	87	89	90	92	93	94	96	97	98	100	101	102	104	105	106	108	
109	42.8	88	89	91	92	94	95	96	98	99	101	102	103	105	106	107	109	
110	43.3	88	90	91	92	94	96	97	98	100	101	102	104	105	106	108	110	
111	43.9	89	91	93	94	95	96	98	99	101	102	103	105	106	107	109	111	





Parlor water use

- Limit use between groups, when possible
- Scrape manure first, then flush
- Determine water efficiencies for cleaning bulk tank and milking equipment
- Install water meters



Dry off early

Low Production

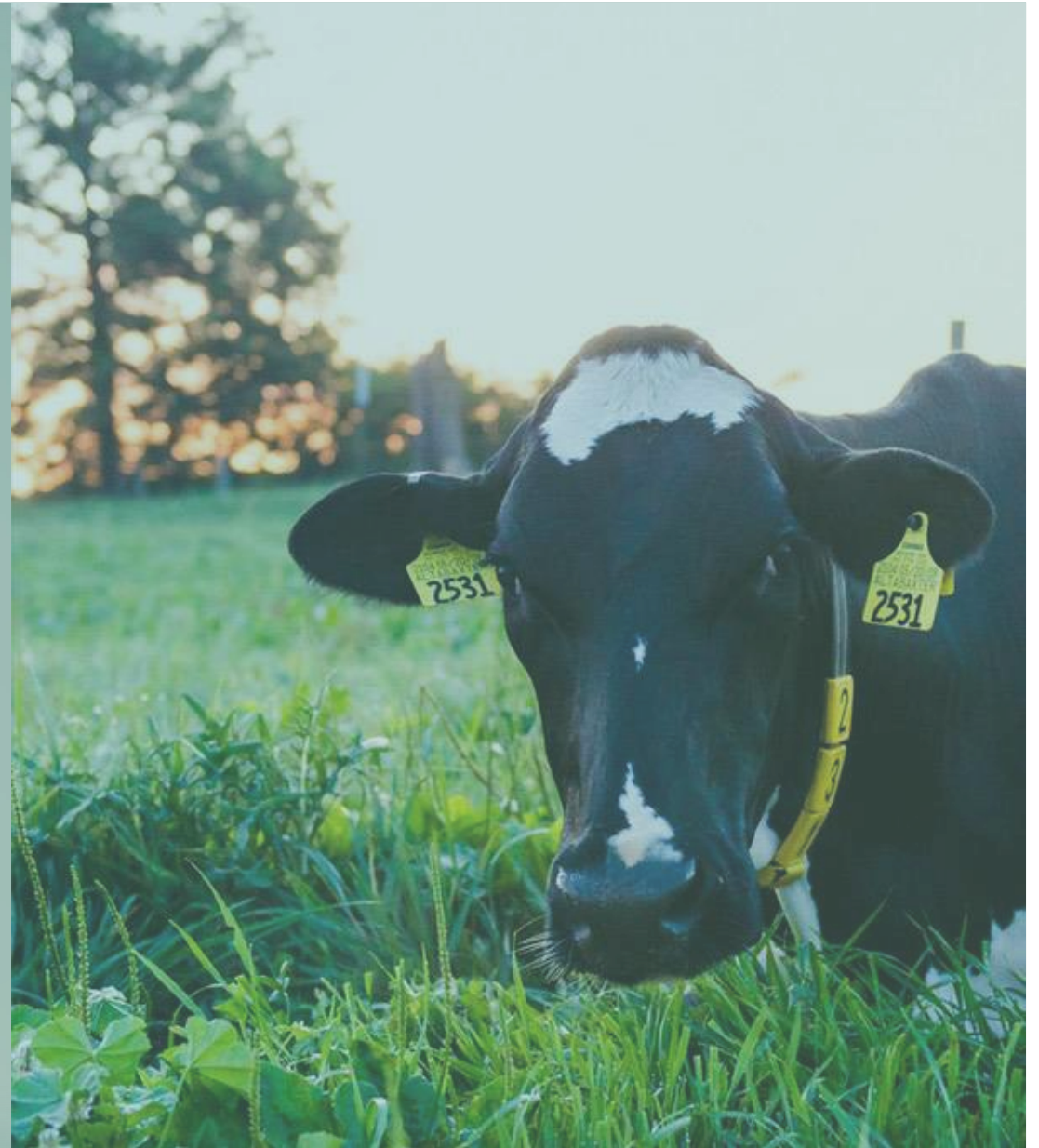
- < 30 lbs/d
- Abrupt dry off
- Monitor body condition closely during dry period

High Production

- > 30 lbs/d
- Low nutrient density – high forage diet
- Once daily milking (ensure clean, dry teats)

Culling

- Limit services per cow (~3 services)
- Limit days open (~150-d)
- Remove luxury water drinkers
- Remove low producing cows





Calves and Heifers

- Wean beef calves early (3-4 months, 300lbs)
- Move dairy heifers off site with greater water availability, if possible

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Drought Management Strategies

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3 Key Strategies

1
Range
Management

2
Supplemental
Feeding

3
Livestock
Management

Range Management

Applying Grazing Strategies



Range Management Strategies

Visually evaluated current condition of grazing lands

- ▶ Document areas of bare ground, weeds, thistles, etc.
- ▶ Be aware of potential toxicities - Nitrogen Accumulators
- ▶ Look to Feed Banking
- ▶ Match.Graze, <https://matchgraze.com/>
- ▶ Rotation of Pastures
- ▶ Create Sacrifice Pastures



Supplemental Feeding

Feed Costs are the highest expense



Supplemental Feeding

- ▶ High-Energy Feeds

Examples of feedstuffs that can serve as effective energy supplements include corn, soybean hull pellets, whole cottonseed, etc.

- ▶ Liquid Supplements

Can supply livestock with essential vitamins and nutrients. Once the herbage mass of crop residue or dry/ mature pasture falls to 1200 kg of dry matter there is insufficient feed on offer to allow the animal to eat more.

- ▶ By-Products

Almost every food industry furnishes some by- products for animal feed, but the most important sources are the milling of grain, the processing of oilseeds, the fermentation of grains and molasses, and other food wastes.



Livestock Management

Maintaining the Health of your Herd



Livestock Management

Review of Grazing & Animal Management Strategies

- ▶ *Best pastures for highest maintenance animals*
- ▶ *Early weaning of calves & lambs*
- ▶ *Other culling strategies*
- ▶ *Selling/Destocking Livestock*



Capital Gains Tax Deferment

- ▶ Authorized under IRS Code §451(e) & §1033(e)
- ▶ Applies to sales in excess of normal business practices
- ▶ Principle business must be agriculture
- ▶ Postpone capital gains to be used to restock cattle within two years of the last concurring tax year declared a drought §1033(e)
- ▶ Defer income – must be under cash accounting - to the next tax year (disaster area declaration required) §451(e)
- ▶ IRS provides annual list of what areas are eligible for deferment



3 Key Strategies

1
Range
Management

2
Supplemental
Feeding

3
Livestock
Management

You need all 3 components to create a sustainable system...

BUT you can't feed out of a drought!

So, let's talk **short** and **long term** strategies



Short Term Strategies

Review management goals & objectives

- ▶ *Explore new grazing strategies / opportunities*
- ▶ *Collaborate on water shortage &/or hauling issues*
- ▶ *Explore local by-products*
- ▶ *Establish monitoring sites*

Plan for the next MONTH, YEAR & FUTURE!




Long Term Strategies

Have a plan prepared and make sure that you have *options!*

- ▶ *Reseed pastures in the fall*
- ▶ *Increase water storage – in or above ground*
- ▶ *Improve soil health & water retention*
- ▶ *Move to a more perennial system*

Again, start planning NOW!



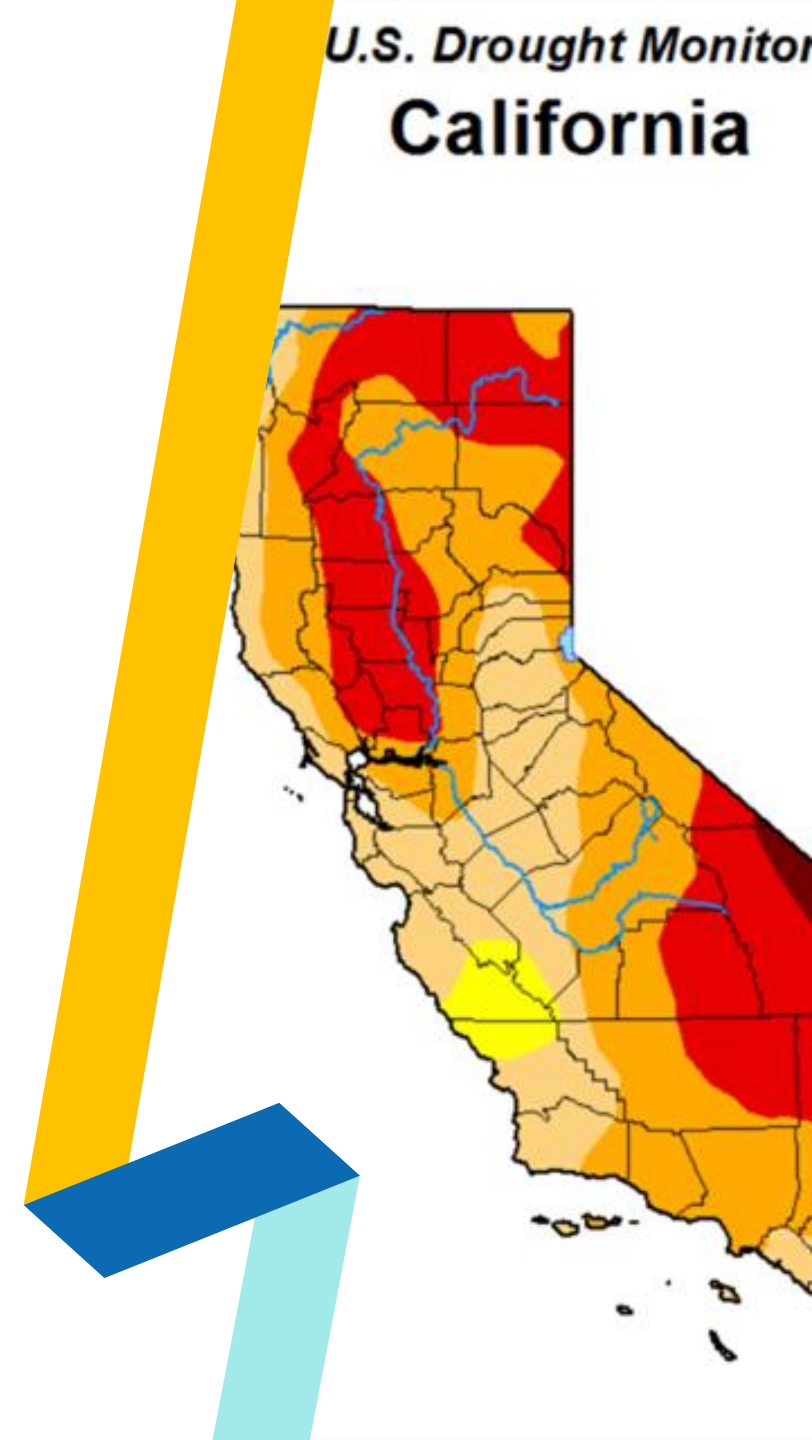


How do we measure drought?

Impact, Compare, Collect

Measuring Drought

- ▶ **Impact** of the current drought on ranch operations
- ▶ **Comparison** of this drought to past droughts
- ▶ **Collect** photos and short video clips showing evidence of the drought at each ranch (bare ground, empty water troughs, livestock, hay barns, etc.)



You can do it to!



Using Personal Stories to Sustain Working Landscapes & Rural Communities
TOOLKIT FOR CHANGE

PRINT

Personal Stories Are Powerful

- Table of Contents
- Facilitation Guide
- Training Guide
- Discussion for the Land Discussion Guides

Create, Document & Share your Story!

Using Personal Stories to Sustain Working Landscapes & Rural Communities
TOOLKIT FOR CHANGE

FACILITATION GUIDE
Community Engagement & Education

TRAINING GUIDE
Resources to Create Digital Stories

UNIVERSITY OF CALIFORNIA

Division of Agriculture and Natural Resources, University of California

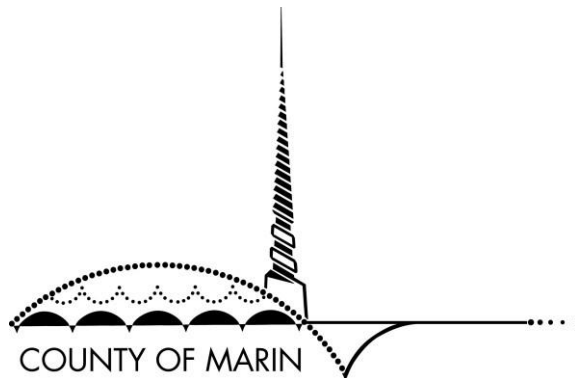


Temporary Variances under the U.S.D.A. National Organic Program regulations



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NOP Temporary Variances

Today we will cover:

- When a variance may be needed
- How to apply for a variance
- If a variance is granted, how can you remain in compliance with NOP regulations
- Steps and actions to take, and when

Start with the NOP regulations

- Regulations: <https://www.ams.usda.gov/rules-regulations/organic>
- Know the process before you begin
- MOCA or your organic certifier does not grant variances
- NOP reviews temporary variance requests and makes determinations
- Variances are rare: 3 in effect nationwide now

USDA Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE

ABOUT AMS NEWS & ANNOUNCEMENTS CONTACT US

HOME MARKET NEWS RULES & REGULATIONS GRADES & STANDARDS SERVICES RESOURCES COMMODITY PROCUREMENT

Organic Regulations

HOME RULES & REGULATIONS ORGANIC REGULATIONS

Home

Market News

Rules & Regulations

- BE Disclosure
- Cotton and Tobacco
- Country of Origin Labeling (COOL)

Food Quality Protection Act

Food Security Act

Hemp

Mandatory Market Reporting

Marketing Orders & Agreements

Organic Regulations

- Organic Labeling
- Organic Seal

The National List

National Organic Standards Board (NOSB)

The National Organic Program (NOP) develops the rules & regulations for the production, handling, labeling, and enforcement of all USDA organic products. This process, referred to as rulemaking, involves input from the National Organic Standards Board (a Federal Advisory Committee made up of fifteen members of the public) and the public. The NOP also maintains a Handbook that includes guidance, instructions, policy memos, and other documents that communicate the organic standards.

Regulatory References

- **USDA organic regulations**, 7 CFR Part205 includes all USDA organic standards, including prohibited practices, requirements, and the [National List of Allowed and Prohibited Substances](#).
- **Program Handbook**. This compilation of guidance documents, policy memos, and instructions is intended to clarify policies and assist those who own, manage, or certify organic operations with complying with NOP regulations.
- **Organic Foods Production Act of 1990**. The Act that established the NOP and its authority to enforce agricultural products sold, labeled, or represented as "organic" within the U.S.
- **Preamble**. If you are interested in the history of the NOP standards, you may want to review the preamble to the final rule, which established the National Organic Program.

Temporary Variances

The Administrator may grant temporary variances from the production and handling requirements of the USDA organic regulations for the following reasons: natural disasters declared by the Secretary; damage caused by severe weather or other business interruption; or practices used for the purpose of conducting research in organic production or handling.

- [View the current list of variances \(pdf\)](#)
- [View the expired list of variances \(pdf\)](#)

NOP regulations state:

- [Section §205.290 Temporary variances.](#)

(a) Temporary variances from the requirements in §§205.203 through 205.207, 205.236 through 205.240 and 205.270 through 205.272 may be established by the Administrator for the following reasons:

(1) Natural disasters declared by the Secretary;

(2) **Damage caused by drought**, wind, flood, excessive moisture, hail, tornado, earthquake, fire, or other business interruption; and

(3) Practices used for the purpose of conducting research or trials of techniques, varieties, or ingredients used in organic production or handling.

(b) A State organic program's governing State official or **certifying agent may recommend in writing** to the Administrator that a temporary variance from a standard set forth in subpart C of this part for organic production or handling operations be established: *Provided*, That, such variance is based on one or more of the reasons listed in paragraph (a) of this section.

(c) The Administrator will provide written notification to certifying agents upon establishment of a temporary variance applicable to the certifying agent's certified production or handling operations and **specify the period of time** it shall remain in effect, subject to extension as the Administrator deems necessary.

(d) A certifying agent, upon notification from the Administrator of the establishment of a temporary variance, must notify each production or handling operation it certifies to which the temporary variance applies.

(e) Temporary variances will not be granted for any practice, material, or procedure prohibited under §205.105.

NOP Pasture rule (§205.237 and §205.240 (Pasture practice.))

- The 120 day / 30% rule (excerpts)

205.237(c) During the grazing season, producers shall:

(1) Provide **not more than an average of 70 percent of a ruminant's dry matter demand from dry matter fed** (dry matter fed does not include dry matter grazed from residual forage or vegetation rooted in pasture). This shall be calculated as an average over the entire grazing season for each type and class of animal. Ruminant animals must be grazed throughout the entire grazing season for the geographical region, which **shall be not less than 120 days per calendar year**. Due to weather, season, and/or climate, the grazing season may or may not be continuous..

205.240 The producer of an organic livestock operation must, for all ruminant livestock on the operation, demonstrate through auditable records in the organic system plan, a functioning management plan for pasture.

(a) **Pasture must be managed as a crop** in full compliance with §§205.202, 205.203(d) and (e), 205.204, and 205.206(b) through (f). Land used for the production of annual crops for ruminant grazing must be managed in full compliance with §§205.202 through 205.206. Irrigation shall be used, as needed, to promote pasture growth when the operation has irrigation available for use on pasture.

(b) Producers must provide pasture in compliance with §205.239(a)(2) and manage pasture to comply with the requirements of: §205.237(c)(2), **to annually provide a minimum of 30 percent of a ruminant's dry matter intake (DMI), on average, over the course of the grazing season(s)**; §205.238(a)(3), to minimize the occurrence and spread of diseases and parasites; and §205.239(e) to refrain from putting soil or water quality at risk.

Request for temporary variance

- A request for a temporary variance must come from the producer to your organic certifier.
- The request must be in writing and include supporting documentation justifying the need for a temporary variance.
 - Cite which NOP section(s) you request the temporary variance for
 - Include a written justification for the temporary variance based on the appropriate reason(s) listed in §205.290(a)(1)-(3); the scope, duration, and any restrictions for the temporary variance; and supporting documentation or records.
- If the temporary variance were granted, the producer must also maintain records on any procedures or practices impacted by the temporary variance.
- The variance is not a complete exemption from the 'Pasture Rule'.
- Timeline to receive response from NOP - Certifier conveys determination from NOP to the operator. At least 10 days.

Supporting documentation

- Drought declaration by the Governor.
- Records related to historical rainfall for your area.
- Current and Historical records on pasture production at your operation's site(s).
- Current and historical DMI calculations.
- Current and historical # of days on pasture.
- Soil types and typical rangeland productivity at your site(s) – from NRCS.
- Rotational grazing practices records.
- Costs may not be a factor.
- Statement of ability to purchase organic feed (conventional cannot be fed)
- Letter should be as specific as possible, stating your current count of days on pasture, dry matter intake from pasture for *all classes of livestock*, and your estimation of number of days and pasture DMI you can make for the grazing season.

Be aware of restrictions


- A temporary variance may not be granted for:
 - a. Any practice, material or procedure prohibited under § 205.105;
 - b. **Feeding non-organic feed to organic livestock**; or
 - c. Any USDA organic regulation not included in §§ 205.203 - 205.207, 205.236 - 205.240, or 205.270 - 205.272.
- Temporary variances **shall be granted for a specified period of time**, subject to extension as the Administrator deems necessary.

What do temporary variances look like?

Company / Producer	Location	Date of AMS Decision	Effective Date	Expiration	Certifying Agent	Remarks
Prosper Farms Investments, LLC	Washington County, Colorado, with grazing sites in Kiowa and Lincoln Counties	7/22/2020	7/22/2020	2020 grazing season only	CCOF Certification Services, LLC (CCOF)	<p>The temporary variance from §205.237(c) and §205.240(b) is due to drought conditions and restricted to the following:</p> <ul style="list-style-type: none"> Applies only to organic livestock producer, Prosper Farms Investments LLC, in Washington County, Colorado, with grazing sites also located in Kiowa and Lincoln Counties. Ruminants must be provided with at least 20 percent average dry matter intake from pasture, or no more than 80 percent average of the ruminant's dry matter demand from dry matter fed, during the 2020 grazing season. <p>Ruminants must be grazed on pasture throughout the grazing season for no less than 90 days during the 2020 grazing season.</p>
Gillian's Dairy	Petaluma, California	6/1/2020	6/1/2020	2020 grazing season only	Oregon Tilth Certified Organic (OTCO)	<p>The temporary variance from §205.237(c)(1) and §205.239(a)(2) is based on severe drought and restricted to the following:</p> <ul style="list-style-type: none"> Applies only to organic livestock producer, Gillian's Dairy, in Petaluma, California. Ruminants must be provided with at least 30 percent average dry matter intake from pasture, or no more than 70 percent average of the ruminant's dry matter demand from dry matter feed, during the 2020 grazing season. <p>Lactating cows must be grazed on pasture throughout the grazing season for no less than 100 days during the 2020 grazing season.</p>

Resources

- NOP’s “Instruction Temporary Variances”
[NOP 2606](#)
- Remember: your certifier must “Prevent conflicts of interest by not giving advice or providing consultancy services, to certification applicants or certified operations, for overcoming identified barriers to certification.” §205.501(11)(iv)



United States Department of Agriculture
Agricultural Marketing Service
National Organic Program

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Washington, DC 20250

Effective Date: November 20, 2015
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Instruction Temporary Variances

- 1. Purpose and Scope**

This instruction describes the policies and procedures used by the U.S. Department of Agriculture (USDA) Agricultural Marketing Service (AMS) to establish or deny a request for a temporary variance from the USDA organic regulations.
- 2. Background**

A certifying agent (certifier) or State Organic Program (SOP) may request a temporary variance from the production and handling requirements at 7 C.F.R. §§ 205.203 - 205.207, 205.236 - 205.240, and 205.270 - 205.272.
- 3. Policy**

Pursuant to 7 C.F.R. § 205.290, a certifier or SOP may recommend that a temporary variance from the USDA organic regulations be established. A certified operation may submit a request for a temporary variance to their certifier or SOP. Recommendations must include a written justification for the temporary variance based on the appropriate reason(s) listed in 7 C.F.R. § 205.290(a)(1) - (3); the scope, duration, and any restrictions for the temporary variance; and documentation or records supporting the recommendation.

The Administrator may establish a temporary variance from the requirements in §§ 205.203 - 205.207, 205.236 - 205.240, and 205.270 - 205.272 of the regulations for the following reasons:

 - Natural disasters declared by the Secretary;
 - Damage caused by drought, wind, flood, excessive moisture, hail, tornado, earthquake, fire, or other business interruption; and
 - Practices used for the purpose of conducting research or trials of techniques, varieties, or ingredients used in organic production or handling.

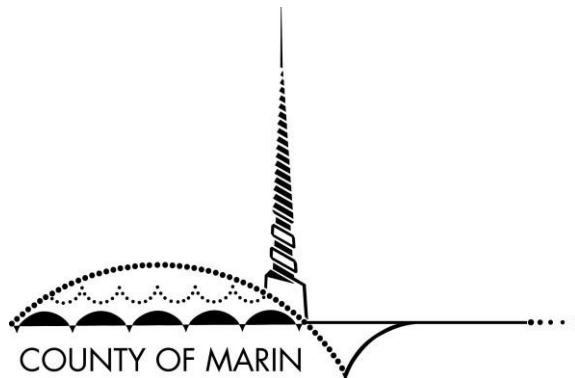
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Temporary variances shall be granted for a specified period of time, subject to extension as the Administrator deems necessary.

NOP 2606 Temporary Variances Rev03Authorized Distribution: Public

We appreciate your time

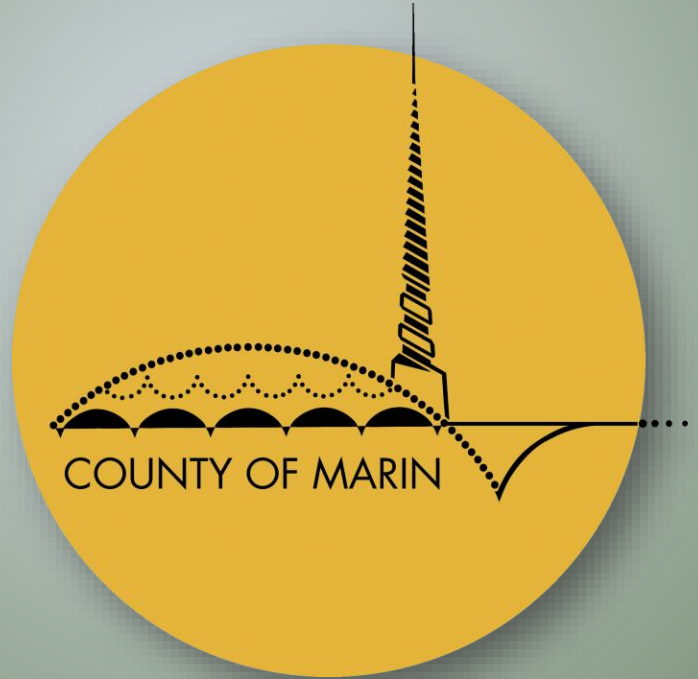


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**Sonoma
Water**





Water Accessibility – Marin County

- North Marin Water District (NMWD)
 - Specific hydrants based on need
 - ✓ San Antonio Road – potable water – meter installed
 - ✓ Stafford Lake – raw water
 - ✓ Point Reyes service area – potable water
- Marin Municipal Water District (MMWD)
 - Nicasio Reservoir – limited raw water for ranchers in the immediate area – meter installed
- Town of Tomales
 - No water source available
- State and federal support

Q&A for Dairy, Livestock & Rangeland

[Agriculture Loss Survey for 2021](#)

