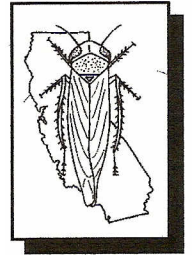


BEET CURLY TOP VIRUS MONTHLY REPORT



CURLY TOP VIRUS CONTROL PROGRAM

2895 N. Larkin, Suite A
Fresno, CA 93727
PHONE: (559) 294-2031
FAX: (559) 294-2037

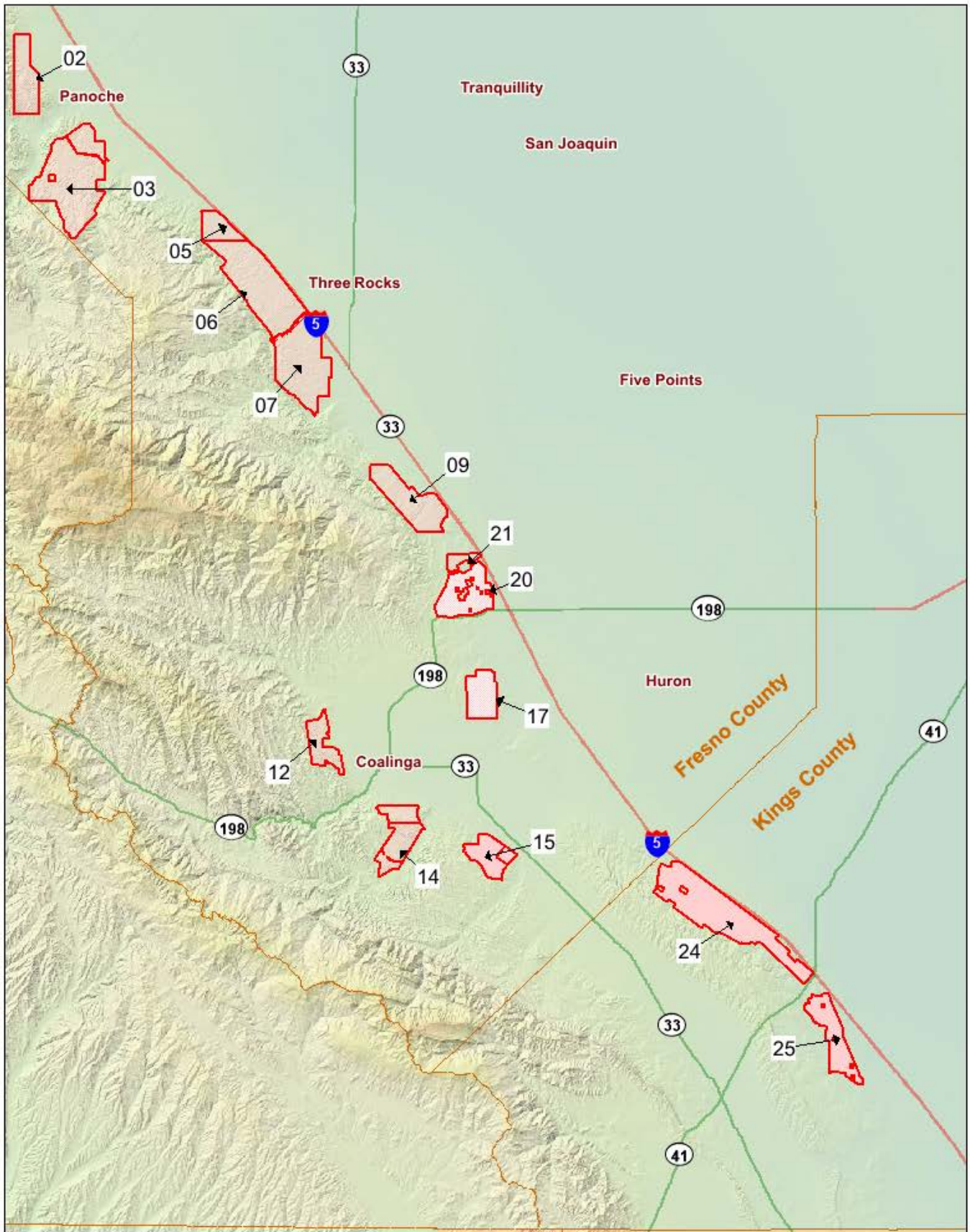
Report for February 2021

Program Wide Update

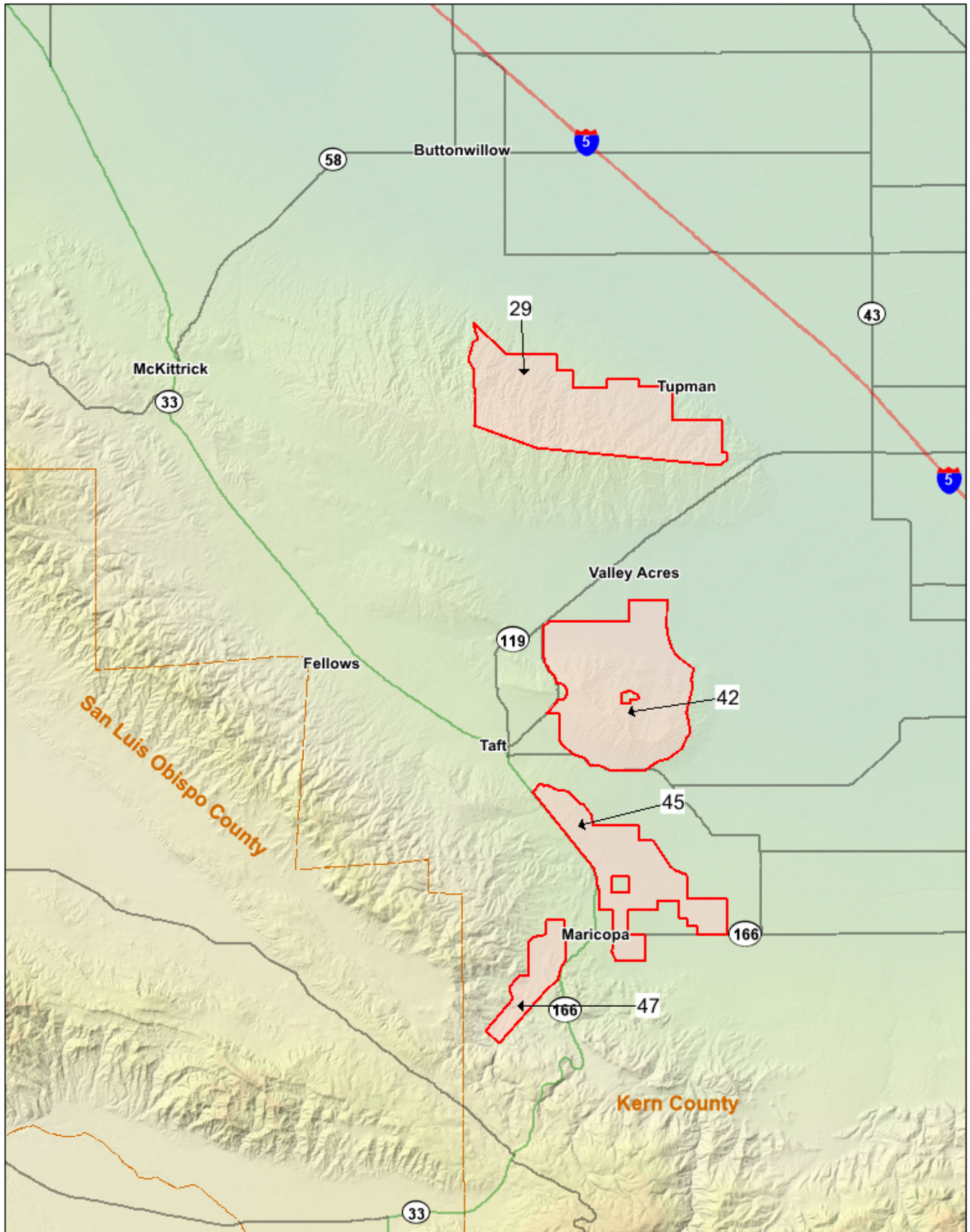
- We welcome Sam Krasnobrod as the new Environmental Scientist with the Curly Top Virus (CTV) Control Program (Program) in Fresno. Sam can be contacted with questions regarding the February Report at: sam.krasnobrod@cdfa.ca.gov, (916) 823-1169.
- Late January brought heavy rainfall to the Central Valley, resulting in sporadic filaree emergence on the westside foothills.
- Early February surveys observed dry conditions across surveyed field sites in Fresno, Kings, and Kern Counties, with minimal growth among beet leafhopper (BLH) host plants: filaree, peppergrass, and *Plantago* (See Fig. 1 & 2 below). BLH populations remained low, with numbers between 0-1 adult BLH per 10 sweeps.
- Surveys conducted between 2/8-2/12 observed similar counts of BLH between 0-3 per 10 sweeps, with lower counts observed in Fresno County, and slightly higher counts in Kern County. All locations remained dry, with young/ground-level filaree and peppergrass.
- Surveys conducted between 2/16-2/19 observed more plant coverage, with *Plantago* starting to develop and filaree beginning to show signs of stress. With adult BLH numbers averaging 0-1 per 10 sweeps, Program personnel familiar with the region noted the unusually low counts of BLH for this time of the year.
- Surveys conducted in Kern County on 2/25 observed predominantly dry conditions with stressed filaree and minimal insect activity. One surveyed area had counts of adult BLH between 3-4 per 10 sweeps; otherwise, counts remain between 0-1 per 10 sweeps.
- No BLH nymph activity has been observed so far this year.
- During the month of February, several plant and BLH samples were collected and sent for virus analysis. Those results will be available in the March CTV monthly report.

Maps of Surveyed Areas and County Reports on Following Pages

BCTV February Survey



BCTV February Survey



February 2021 Surveyed Area Maps produced by Frank Herrera

County Reports

Fresno County

- Tumey Hills, Field #3, 2/2/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - Host plant vegetation was starting to develop but was in very early stages. Filaree accounted for the visible host plants.
- Domengine Ranch, Field #9, 2/4/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - Filaree was developing throughout the property and was still in early stages of development, with stress observed in areas with high wind exposure. Annual grasses were also developing and were intermixed with filaree at this time. Overall insect activity was nonexistent.
 - Plant Sample Collected: Yes, filaree
 - Update* 2/18/21 (**Fig. 3**)
 - Adult BLH Count 0-1 per 10 sweeps
 - Nymph: N/A
 - Filaree was beginning to stress, *Plantago* emergence observed, limited overall insect activity.
- Big C, Field #12, 2/4/21 (**Fig. 1**)
 - Adult BLH count: 0-1 per 10 sweeps
 - Nymph: N/A
 - This site is located west of Coalinga. At the time of this survey, conditions were dry, with filaree and peppergrass as the predominant host vegetation. Very low BLH counts observed, with a total of six adult BLH collected across 150 sweeps.
 - Plant Sample Collected: Yes, filaree
 - BLH Sample Collected: Yes, adult BLH
- Chevron & Chevron North, Fields #20 & 21, 2/4/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - This site is located north of Coalinga. At the time of this survey, conditions were dry and windy, and vegetation levels were low.
 - Plant Sample Collected: Yes, filaree
 - Update* 2/17-18/21
 - Adult BLH count: 0 per 10 sweeps
 - Low levels of filaree with seasonal grasses.
- Zapato's Creek, Field #15, 2/8/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - Light vegetation development had taken place throughout area, with observed BLH host vegetation including a mixture of young filaree and peppergrass.
- Coalinga Nose, Field #17, 2/9/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - This remote area is located several miles east of Coalinga, northwest of Palmer/Calaveras Ave. The majority of BLH host vegetation observed in this area was filaree.
 - Plant Sample Collected: Yes, filaree

- Jacalitos Creek, Field #14, 2/10/21 & 2/11/21
 - Adult BLH count: 1-2 per 10 sweeps
 - Nymph: N/A
 - Vegetation conditions appeared to be developing ideally along the south-western slopes, with filaree being predominant. There was very limited peppergrass and *Plantago* developing in the area. Program personnel noticed some areas of filaree, especially amongst the higher elevations, beginning to show signs of stress.
 - Plant Sample Collected: Yes, filaree
 - BLH Sample Collected: Yes, adult BLH
- North of Kamm, Field #5, 2/16/21
 - Adult BLH count: 0-1 per 10 sweeps
 - Nymph: N/A
 - Vegetation was developing throughout the site with high concentrations of filaree and annual grasses present. Limited areas of *Plantago* were also developing along southwest facing slopes. Host plant vegetation was small with average size in the ½ inch to 1-inch range, signs of stress were observed on filaree throughout the area. BLH counts throughout the area was limited despite ideal host plant conditions.
 - Plant Sample Collected: Yes, filaree and *Plantago*
- South of Kamm, Field #6, 2/16/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - Vegetation was the same as North of Kamm.
 - Plant Sample Collected: Yes, *Plantago*
- Cantua, Field #7, 2/16/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - Vegetation was the same as North of Kamm.
 - Plant Sample Collected: Yes, *Plantago*
- Panoche Creek, Field #2, 2/19/21
 - Adult BLH count: 0-1 per 10 sweeps
 - Nymph: N/A
 - Increased host plant development was observed, with filaree and *Plantago* accounting for viable host plants on the property. Filaree was widespread with signs of die off occurring on the ridges and southwest facing slopes. *Plantago* was present in broad bands on all southwest facing slopes and was showing advanced development compared to other survey areas.

Kings County

- Kettleman Hills, Fields #24 & 25, 2/3/21
 - Adult BLH count: 0 per 10 sweeps
 - Nymph: N/A
 - At the time of survey, conditions were dry, with minimal filaree growth on the southern end of the field site. No observed BLH activity.
 - Plant Sample Collected: Yes, filaree
 - Update* 2/16-18/21
 - Adult BLH Count: 0-1 per 10 sweeps
 - Nymph: N/A
 - Most of the area's BLH host vegetation consisted of very short, sparse filaree, with early signs of stress. Program personnel noticed very little *Plantago* and peppergrass germination compared to previous years.

Kern County

- Buena Vista Hills, Field #42, 2/1/21 (**Fig. 2**)
 - Adult BLH count: 0-1 per 10 sweeps
 - Nymph: N/A
 - Tiny vegetation was just starting to appear among very dry terrain due to a mostly dry fall/winter.
 - Update* 2/18/21
 - Adult BLH count: 0-1 per 10 sweeps (no change)
 - Nymph: N/A
 - Sparse vegetation with ground level filaree and *Plantago*. Limited development of seasonal grasses.
 - Update* 2/25/21
 - Adult BLH count: 0-1 per 10 sweeps
 - Nymph: N/A
 - Filaree in this area was showing signs of stress and appeared red and dried out. No peppergrass or *Plantago* observed. Minimal insect activity.
- Kitty Care, Field #45, 2/1/21
 - Adult BLH count: 0-1 per 10 sweeps
 - Nymph: N/A
 - Field site is located just north of Maricopa. Tiny vegetation was just starting to appear across very dry terrain.
 - Update* 2/12/21
 - Adult BLH count: 2-3 per 10 sweeps
 - Nymph: N/A
 - Observed 2-3 adult BLH per 10 sweeps on nearly bare south facing hills and ridges along the western portion of the area. Filaree under widespread dry grass overgrowth throughout the eastern portion flats shows no BLH activity.
- Elkhorn Valley, Field #47, 2/11/21
 - Adult BLH count: 1-2 per 10 sweeps
 - Nymph: N/A
 - South facing hills on the east side of elkhorn valley remained nearly devoid of host vegetation. Developing filaree on the valley floor was free of seasonal grasses.
 - Update* 2/25/21
 - Adult BLH count: 3-4 per 10 sweeps
 - Nymph: N/A
 - The greenest filaree in Kern County was observed in this area, though coverage was sparse and plants were small. No peppergrass or *Plantago* was observed.
 - Plant Sample Collected: Yes, filaree
 - BLH Sample Collected: Yes, adult BLH
- Elk Hills, Field #29, 2/18/21
 - Adult BLH count: 1-2 per 10 sweeps
 - Nymph: N/A

- Sparse, tiny filaree and *Plantago* were observed on the nearly bare south facing hills and ridges.



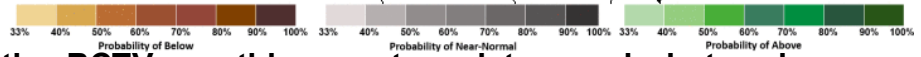
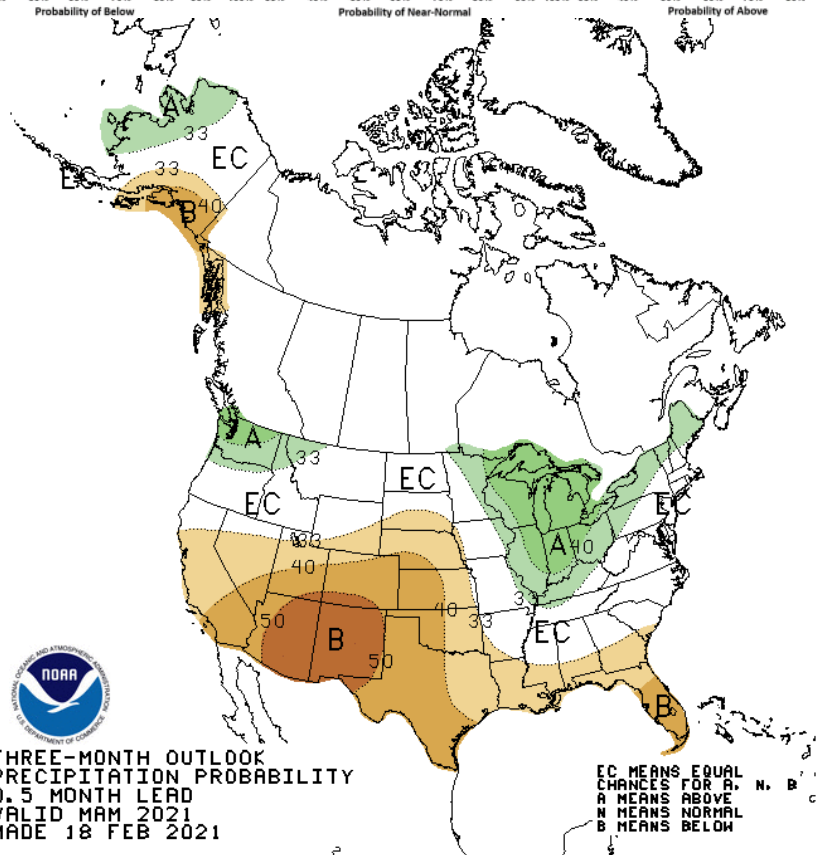
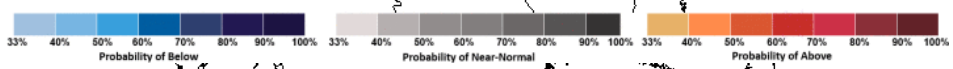
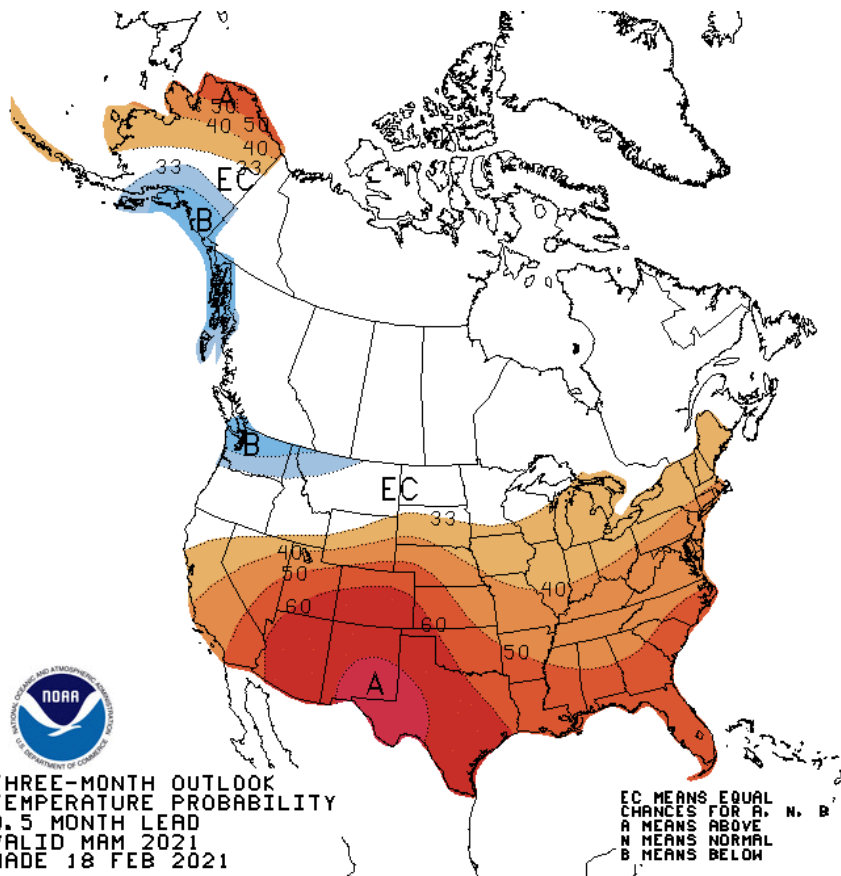
Fig. 1: Big C field site near Coalinga. Photo taken 2/4/21 SK



Fig. 2: Buena Vista Hills, Kern Co. Photo taken early February, JO



Fig. 3: Domegine, Fresno, Co. Green filaree, *Plantago*, and seasonal grasses cover the hillsides north of Coalinga. Photo taken 2/18/21 SK



To subscribe to the BCTV monthly report, updates, and alerts, please use the link below:

www.cdfa.ca.gov/subscriptions/