United States Department of Agriculture

Animal and Plant Health Inspection Service

Veterinary Services

2019 Vesicular Stomatitis Virus (VSV) Situation Report – October 23, 2019

Information current as of 12:00pm MDT, 10/23/2019

On October 23, 2019, the National Veterinary Services Laboratories in Ames, Iowa confirmed a finding of VSV infection (Indiana serotype) on a premises in Sherman County, Kansas. Three of 5 horses on the premises are showing clinical signs of VSV and one of the horses has met confirmed case definition of an index case in a new state with a VSV-positive complement fixation titer of 1:40 or greater. Two of the affected horses are also PCR-positive for VSV-Indiana. There are 14 cattle on the premises that are clinically unaffected and the premises is currently under state quarantine. This is the 2019 VSV index case for Kansas.

Additionally, since the last situation report (October 17, 2019), there have been 7 new VSV-affected premises (6 confirmed positive, 1 suspect) identified:

Colorado (3 new confirmed positive, 1 new suspect)

- Garfield County – 2 new confirmed positive premises
- Mesa County – 1 new suspect premises
- **Pitkin County (New Infected County) –** 1 confirmed positive premises
- Since the last situation report, 6 previously VSV-infected or suspect premises have been released from quarantine.

Nebraska (1 new confirmed positive)

- Morrill County – 1 new confirmed positive premises

Texas (1 new confirmed positive)

- Collin County – 1 new confirmed positive premises

Utah (1 new confirmed positive)

- **Carbon County (New Infected County)** – 1 confirmed positive premises

Classification of Cases

Premises that have laboratory diagnostic confirmation of VSV are categorized as confirmed positive premises. Once a county is confirmed as VSV-positive, new equine premises presenting with clinical signs of VSV in that county are not required to be tested for confirmation of the disease, but the premises will be quarantined and classified as a suspect premises. Premises not meeting diagnostic confirmed case definition, but showing some evidence of recent VSV infection on testing may also be classified as suspect premises.

Quarantines
Confirmed positive and suspect premises are quarantined for at least 14 days from the onset of lesions in the last affected animal on the premises.

Summary of the Outbreak (Updated information in blue)
The 2019 VSV outbreak began on June 21, 2019, when the National Veterinary Services Laboratories (NVSL) in Ames, Iowa confirmed the first VSV-positive premises in Kinney County, Texas. New Mexico, Colorado, Wyoming, Oklahoma, Nebraska, Utah, and Kansas subsequently broke with cases which were confirmed by NVSL on June 26, 2019 (Sandoval County, New Mexico), July 3, 2019 (Weld County, Colorado), July 24, 2019 (Platte County, Wyoming), July 29, 2019 (Tillman County, Oklahoma), August 9, 2019 (Lincoln County, Nebraska), August 19, 2019 (Emery and Uintah Counties, Utah), and October 23, 2019 (Sherman County, Kansas).

Since the start of the outbreak, **1,131 VSV-affected premises have been identified (462 confirmed positive, 669 suspect).** One thousand one hundred nineteen (1,119) of these premises have only equine species clinically affected, 11 premises have only affected cattle (Boulder, Delta, and Larimer County, Colorado; Gonzales County, Texas; Uintah County, Utah; and Hot Springs, Park, and Platte County, Wyoming), and 1 premises has both cattle and horses clinically affected (Park County, Wyoming).

Colorado has identified 686 affected premises (269 confirmed positive, 417 suspect) in 38 counties (Adams, Alamosa, Arapahoe, Archuleta, Boulder, Broomfield, Chaffee, Clear Creek, Conejos, Delta, Dolores, Douglas, Eagle, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Jefferson, La Plata, Larimer, Las Animas, Mesa, Mineral, Moffat, Montezuma, Montrose, Morgan, Ouray, Park, Pitkin, Pueblo, Rio Blanco, San Miguel, Summit, Teller, and Weld Counties).

Kansas has identified 1 affected premises in 1 county (Sherman County).

Nebraska has identified 25 affected premises (15 confirmed positive, 10 suspect) in 4 counties (Dawes, Lincoln, Morrill, and Scotts Bluff Counties).

New Mexico has identified 76 affected premises (47 confirmed positive, 29 suspect) in 12 counties (Cibola, Los Alamos, Mora, Rio Arriba, Sandoval, San Juan, San Miguel, Santa Fe, Sierra, Socorro, Taos, and Valencia Counties).

Oklahoma has identified 1 affected premises in 1 county (Tillman County).

Texas has identified 172 affected premises (76 confirmed positive, 96 suspect) located in 37 counties (Bastrop, Bell, Bosque, Brown, Caldwell, Coleman, Collin, Coryell, Dallas, Eastland, Ellis, Erath, Falls, Gonzales, Guadalupe, Haskell, Hays, Hill, Hood, Johnson, Kerr, Kinney, Lampasas, Mason, McLennan, Mills, Palo Pinto, Parker, San Saba, Shackelford, Somervell, Taylor, Tom Green, Travis, Val Verde, Wichita, and Williamson Counties).

Utah has identified 23 affected premises (12 confirmed positive, 11 suspect) in 6 counties (Carbon, Duchesne, Emery, Grand, San Juan, and Uintah Counties).

Wyoming has identified 147 affected premises (41 confirmed positive, 106 suspect) in 11 counties (Albany, Big Horn, Carbon, Converse, Fremont, Goshen, Hot Springs, Laramie, Park, Platte, and Sweetwater Counties).

There have been a total of 1,058 previously VSV-infected or suspect premises in all affected states that have completed the quarantine period and been released. **All quarantined premises have been released in Oklahoma (since August 7, 2019) and New Mexico (since September 5, 2019).**

Summary of VSV-Affected Premises

Table 1. Location, number, and status of VSV-affected premises. New information in blue.

COLORADO	Confirmed Positive Premises	Suspect Premises	Premises Released from Quarantine	Current Premises Quarantined
Adams County	7	8	15	0
Alamosa County	2	2	4	0
Arapahoe County	2	0	2	0
Archuleta County	7	10	17	0
Boulder County	24	35	59	0
Broomfield County	1	1	2	0
Chaffee County	3	0	3	0
Clear Creek County	1	0	1	0
Conejos County	2	0	2	0
Delta County	5	40	45	0
Dolores County	1	0	1	0
Douglas County	14	3	17	0
Eagle County	1	0	1	0
El Paso County	1	0	1	0
Fremont County	2	1	3	0
Garfield County	14	3	9	8
Gilpin County	1	0	1	0
Grand County	1	0	1	0
Gunnison County	2	0	2	0
Jefferson County	36	28	64	0
La Plata County	10	56	66	0
Larimer County	57	87	143	1
Las Animas County	1	0	1	0
Mesa County	12	47	58	1
Mineral County	1	0	1	0
Moffat County	1	0	1	0

Montezuma County	3	26	29	0
Montrose County	4	25	29	0
Morgan County	2	5	6	1
Ouray County	3	2	5	0
Park County	2	0	2	0
Pitkin County	1	0	0	1
Pueblo County	2	3	5	0
Rio Blanco County	2	1	3	0
San Miguel County	1	4	5	0
Summit County	1	1	2	0
Teller County	1	0	1	0
Weld County	38	29	67	0
TOTAL: 38 COUNTIES	**269**	**417**	**674**	**12**
KANSAS				
Sherman County	1	0	0	1
TOTAL: 1 COUNTY	**1**	**0**	**0**	**1**
NEBRASKA				
Dawes County	1	0	1	0
Lincoln County	1	0	1	0
Morrill County	2	1	2	1
Scotts Bluff County	11	9	20	0
TOTAL: 4 COUNTIES	**15**	**10**	**24**	**1**
NEW MEXICO				
Cibola County	1	0	1	0
Los Alamos County	1	0	1	0
Mora County	1	0	1	0
Rio Arriba County	1	6	7	0
Sandoval County	7	3	10	0
San Juan County	1	3	4	0
San Miguel County	2	2	4	0
Santa Fe County	5	6	11	0
Sierra County	1	0	1	0
Socorro County	1	0	1	0
Taos County	5	1	6	0
Valencia County	21	8	29	0
TOTAL: 12 COUNTIES	**47**	**29**	**76**	**0**
OKLAHOMA				
Tillman County	1	0	1	0
TOTAL: 1 COUNTY	**1**	**0**	**1**	**0**

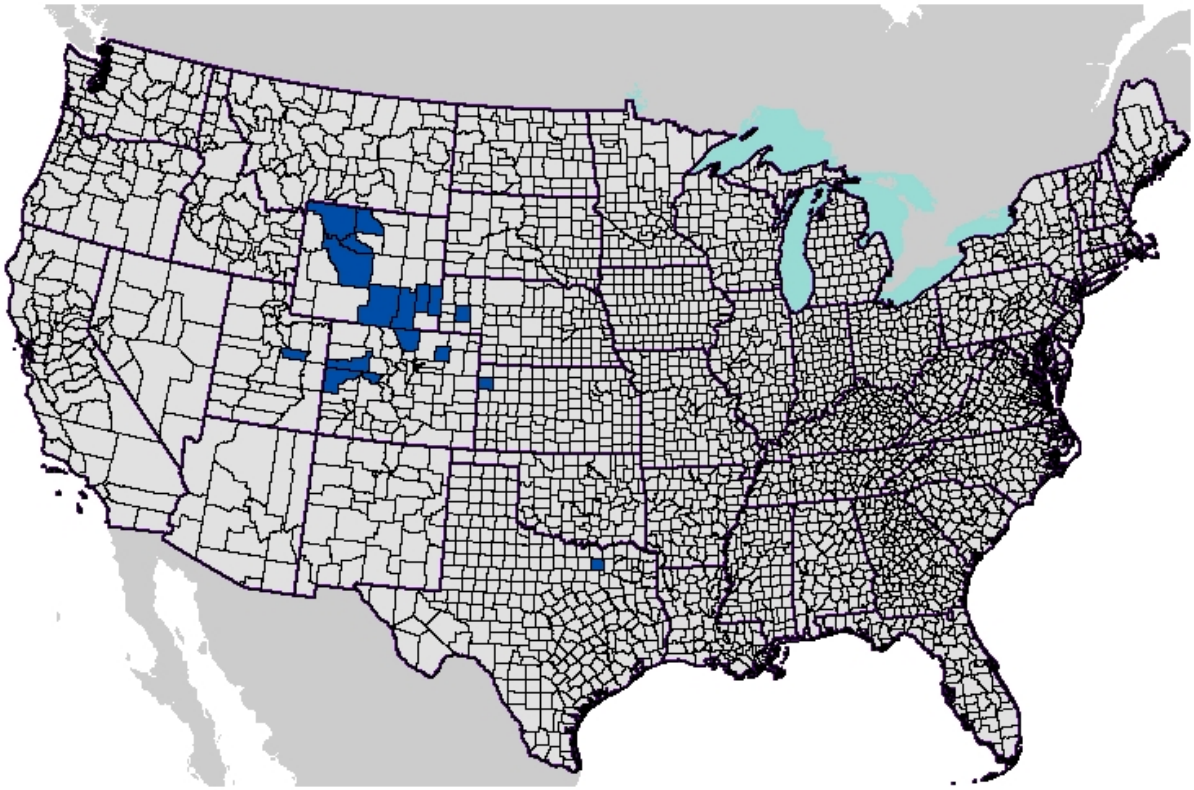
TEXAS	Confirmed Positive Premises	Suspect Premises	Premises Released from Quarantine	Current Premises Quarantined
Bastrop County	9	50	59	0
Bell County	1	2	3	0
Bosque County	1	0	1	0
Brown County	1	0	1	0
Caldwell County	2	1	3	0
Coleman County	3	0	3	0
Collin County	3	0	2	1
Coryell County	1	0	1	0
Dallas County	4	0	4	0
Eastland County	1	0	1	0
Ellis County	4	2	6	0
Erath County	1	1	2	0
Falls County	1	0	1	0
Gonzales County	1	0	1	0
Guadalupe County	1	5	6	0
Haskell County	1	0	1	0
Hays County	1	4	5	0
Hill County	1	0	1	0
Hood County	4	3	7	0
Johnson County	1	0	1	0
Kerr County	1	0	1	0
Kinney County	1	0	1	0
Lampasas County	1	0	1	0
Mason County	1	0	1	0
McLennan County	2	3	5	0
Mills County	1	0	1	0
Palo Pinto County	6	1	7	0
Parker County	4	1	5	0
San Saba County	1	0	1	0
Shackelford County	2	0	2	0
Somervell County	2	1	3	0
Taylor County	1	0	1	0
Tom Green County	3	0	3	0
Travis County	2	15	17	0
Val Verde County	1	0	1	0
Wichita County	1	0	1	0
Williamson County	4	7	11	0
TOTAL TEXAS: 37 COUNTIES	**76**	**96**	**171**	**1**
UTAH				
Carbon County	1	0	0	1
Duchesne County	1	0	1	0
Emery County	1	0	1	0
Grand County	2	1	3	0
San Juan County	1	0	1	0

Uintah County	6	10	16	0
TOTAL: 6 COUNTIES	**12**	**11**	**22**	**1**
WYOMING				
Albany County	5	1	3	3
Big Horn County	1	1	1	1
Carbon County	3	2	4	1
Converse County	2	6	8	0
Fremont County	7	5	4	8
Goshen County	1	5	4	2
Hot Springs County	5	11	10	6
Laramie County	1	0	1	0
Park County	10	61	41	30
Platte County	5	14	13	6
Sweetwater County	1	0	1	0
TOTAL: 11 COUNTIES	**41**	**106**	**90**	**57**
TOTAL PREMISES ALL STATES	**462**	**669**	**1058**	**73**

Table 2. Cumulative count of species clinically affected on VSV-positive premises.

State	Premises with clinically affected equine species	Premises with clinically affected bovine species	Premises with clinical signs in both equine and bovine species	Premises with clinical signs in other susceptible species	Total affected premises
COLORADO	683	3	0	0	686
KANSAS	1	0	0	0	1
NEBRASKA	25	0	0	0	25
NEW MEXICO	76	0	0	0	76
OKLAHOMA	1	0	0	0	1
TEXAS	171	1	0	0	172
UTAH	22	1	0	0	23
WYOMING	140	6	1	0	147
TOTAL	**1,119**	**11**	**1**	**0**	**1,131**

Map 1 (Current). Counties with Current VSV-Quarantined Premises (shaded in blue)



Map 2 (Cumulative). Counties with Premises Quarantined for VSV Since June 21, 2019 (shaded in blue)

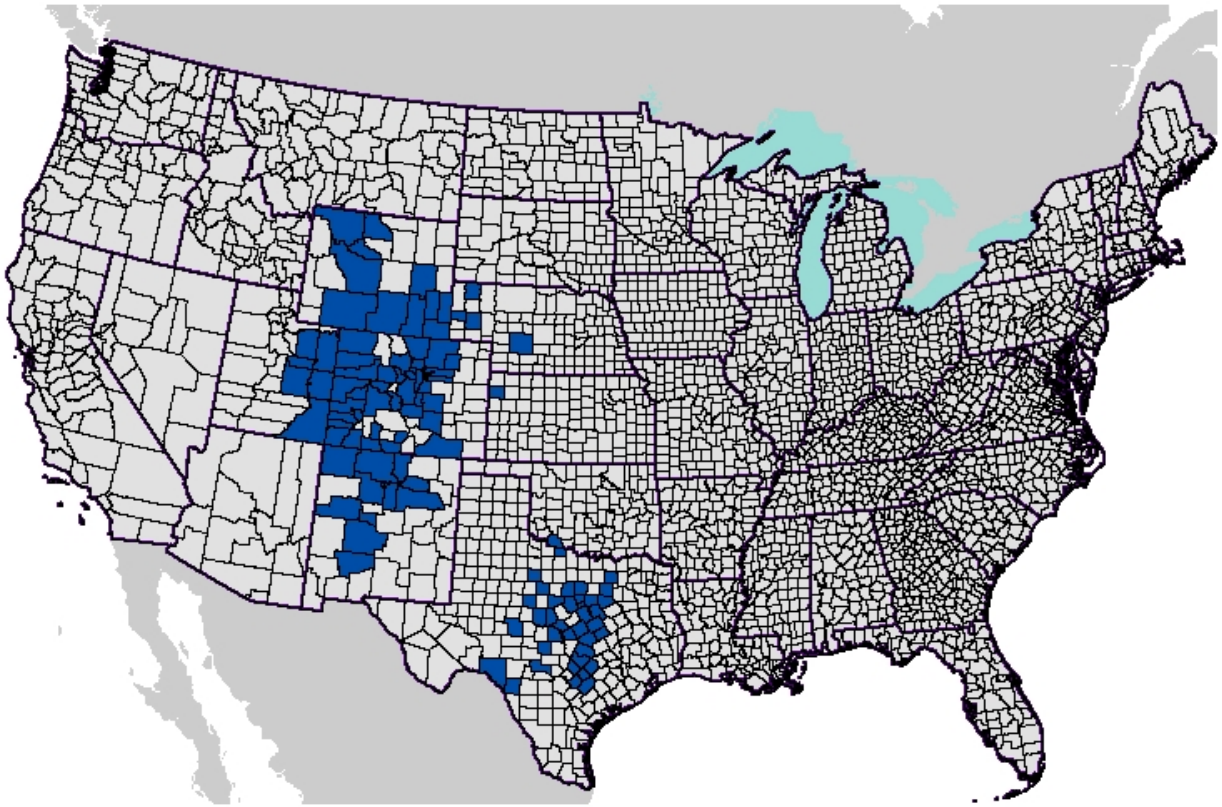


Figure 1. Cumulative Epidemic Curve for Onset of Lesions in Animals on Affected Premises in All States. Information complete as of October 10, 2019.

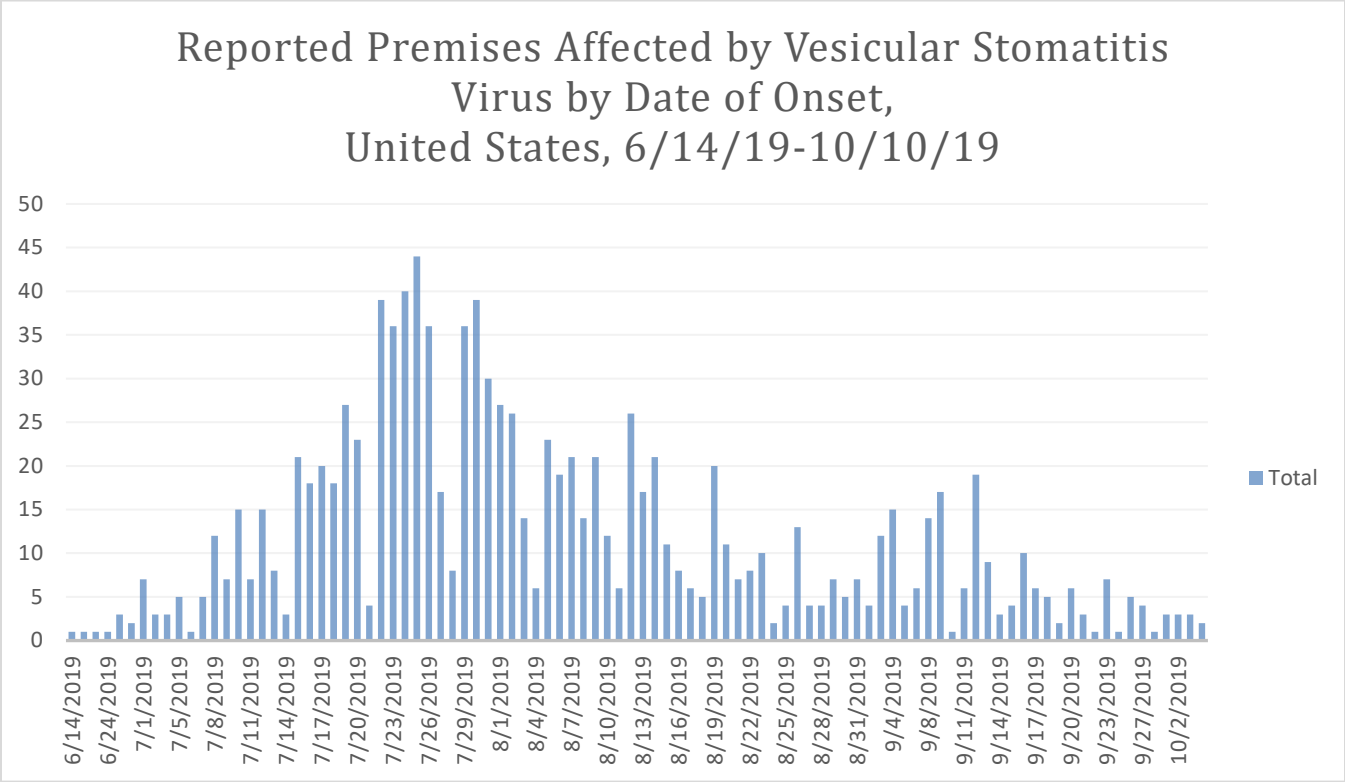


Table 3. Timeline of Events – New Affected Premises

Date	Event – New Affect Premises
June 21, 2019	VSV index case for the U.S. confirmed at NVSL – Kinney County, Texas
June 24, 2019	New affected county confirmed – Tom Green County, Texas
June 26, 2019	Index case for New Mexico confirmed – Sandoval County, New Mexico
July 3, 2019	Index case for Colorado confirmed – Weld County, Colorado
July 5, 2019	New affected counties confirmed – Los Alamos, New Mexico; Larimer County, Colorado
July 8, 2019	New affected counties confirmed – Valencia County, New Mexico; Coleman County, Texas; Kerr County, Texas
July 10, 2019	New affected counties confirmed – La Plata County, Colorado; Santa Fe County, New Mexico
July 11, 2019	New affected counties confirmed – Taylor County, Texas; Val Verde County, Texas
July 12, 2019	New affected counties confirmed – Boulder County, Colorado; Shackelford and Wichita Counties, Texas
July 16, 2019	New affected county confirmed – Broomfield County, Colorado

July 17, 2019	New affected counties confirmed – Adams County, Colorado; Bastrop, Hood, and Johnson Counties, Texas
July 18, 2019	New affected county confirmed – Hays County, Texas
July 19, 2019	New affected county confirmed – Delta County, Colorado
July 22, 2019	New affected county confirmed – Archuleta County, Colorado
July 23, 2019	New affected counties confirmed – Montezuma County and Morgan County, Colorado; Somervell County, Texas
July 24, 2019	Index case for Wyoming confirmed – Platte County, Wyoming. New affected counties confirmed – Mesa County, Colorado; Cibola and San Miguel Counties, New Mexico
July 25, 2019	New affected counties confirmed – Brown, Palo Pinto, and Travis Counties, Texas
July 26, 2019	New affected counties confirmed – Jefferson County, Colorado; Sierra County, New Mexico; Parker County, Texas.
July 29, 2019	Index case for Oklahoma confirmed – Tillman County, Oklahoma. New affected counties confirmed – San Juan County, New Mexico; Caldwell, Eastland, and San Saba Counties, Texas.
July 30, 2019	New affected counties confirmed – Conejos County, Colorado; Mills County, Texas.
July 31, 2019	New affected counties confirmed – Montrose County, Colorado; Guadalupe, Lampasas, McLennan, and Williamson Counties, Texas.
August 1, 2019	New affected counties confirmed – Alamosa and Ouray Counties, Colorado; Gonzales and Mason Counties, Texas; Laramie County, Wyoming.
August 2, 2019	New affected counties confirmed – Douglas County, Colorado; Socorro County, New Mexico; Falls County, Texas; Converse County, Wyoming.
August 5, 2019	New affected counties confirmed – Coryell and Erath Counties, Texas.
August 6, 2019	New affected counties confirmed – Gilpin and Pueblo Counties, Colorado; Haskell County, Texas.
August 7, 2019	New affected counties confirmed – Grand County, Colorado; Mora County, New Mexico.
August 8, 2019	New affected county confirmed – Bell County, Texas.
August 9, 2019	Index case for Nebraska confirmed – Lincoln County, Nebraska. New affected county confirmed – Bosque County, Texas.
August 14, 2019	New affected counties confirmed – Arapahoe and Mineral Counties, Colorado.
August 15, 2019	New affected counties confirmed – Gunnison County, Colorado; Scotts Bluff County, Nebraska; Dallas County, Texas; Albany and Sweetwater Counties, Wyoming.
August 16, 2019	New affected county confirmed – Collin County, Texas.
August 19, 2019	Index cases for Utah confirmed – Emery and Uintah Counties, Utah.
August 20, 2019	New affected counties confirmed – Chaffee and Fremont Counties, Colorado.
August 21, 2019	New affected county confirmed – Park County, Colorado
August 22, 2019	New affected counties confirmed – Dawes County, Nebraska; Ellis County, Texas; Hot Springs County, Wyoming.

August 23, 2019	New affected counties confirmed – Garfield and San Miguel Counties, Colorado.
August 26, 2019	New affected counties confirmed – Rio Blanco and Summit Counties, Colorado.
August 28, 2019	New affected counties confirmed – El Paso County, Colorado; Grand and San Juan Counties, Utah; Carbon and Goshen Counties, Wyoming.
August 29, 2019	New affected county confirmed – Duchesne County, Utah.
August 30, 2019	New affected counties confirmed – Dolores County, Colorado; Hill County, Texas.
September 3, 2019	New affected counties confirmed – Big Horn and Park Counties, Wyoming.
September 5, 2019	New affected county confirmed – Morrill County, Nebraska.
September 13, 2019	New affected counties confirmed – Eagle and Las Animas Counties, Colorado.
September 17, 2019	New affected county confirmed – Teller County, Colorado
September 19, 2019	New affected county confirmed – Fremont County, Wyoming.
October 8, 2019	New affected county confirmed – Clear Creek County, Colorado.
October 16, 2019	New affected county confirmed – Moffat County, Colorado.
October 17, 2019	New affected county confirmed – Pitkin County, Colorado.
October 23, 2019	Index case for Kansas confirmed – Sherman County, Kansas. New affected county confirmed – Carbon County, Utah.

Table 4. Timeline of Events – State-wide Quarantine Releases

Date	**Event – Quarantine Release**
August 7, 2019	Last VSV quarantine released – Oklahoma.
September 5, 2019	Last VSV quarantine released – New Mexico.