United States Department of Agriculture

Animal and Plant Health Inspection Service

Veterinary Services

# 2020 Vesicular Stomatitis Virus (VSV) Situation Report – May 14, 2020

*Information current as of 5:00 pm MDT, 05/14/2020*

There have been no new VSV-infected states identified since April 23, 2020. Currently affected states include Arizona, New Mexico, and Texas.

**Since the last situation report (5/7/2020), there have been 4 new VSV-affected premises identified (3 confirmed positive, 1 suspect) in 2 states. Updates are as follows:**

**Arizona (no new positive premises)**

- Since the last situation report, 2 premises have been released from quarantine – 1 in Cochise County and 1 in Pinal County.

**New Mexico (2 new confirmed positive, 1 new suspect premises)**

- De Baca County – 1 new confirmed positive equine premises
- Dona Ana County – 1 new confirmed positive equine premises
- Sierra County – 1 new suspect equine premises
- Since the last situation report, 7 premises have been released from quarantine – 3 in Dona Ana County, 1 in Eddy County, and 3 in Sierra County.

**Texas (1 new confirmed positive premises)**

- Zapata County – 1 new confirmed positive equine 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.

**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 2020 VSV outbreak began on April 13, 2020, when the National Veterinary Services Laboratories (NVSL) in Ames, Iowa confirmed the first VSV-positive premises in Dona Ana County, New Mexico. Arizona and Texas subsequently broke with VSV cases which were confirmed by NVSL on April 22, 2020 (Cochise County, Arizona) and April 23, 2020 (Starr County, Texas).

Since the start of the outbreak, **27 VSV-affected premises have been identified (24 confirmed positive, 3 suspect).** Twenty-four (24) of these premises had only equine species clinically affected and 3 premises had clinically affected cattle (Starr and Zapata Counties, Texas).

Arizona has identified 5 affected premises (5 confirmed positive, 0 suspect) in 4 counties (Cochise, Gila, Pima, and Pinal Counties). New Mexico has identified 15 affected premises (12 confirmed positive, 3 suspect) in 6 counties (Bernalillo, De Baca, Dona Ana, Eddy, Grant and Sierra Counties). Texas has identified 7 affected premises (7 confirmed positive, 0 suspect) in 3 counties (El Paso, Starr, and Zapata Counties). There have been a total of 9 previously VSV-infected or suspect premises that have completed the quarantine period and been released. Eighteen (18) premises remain under VSV quarantine.

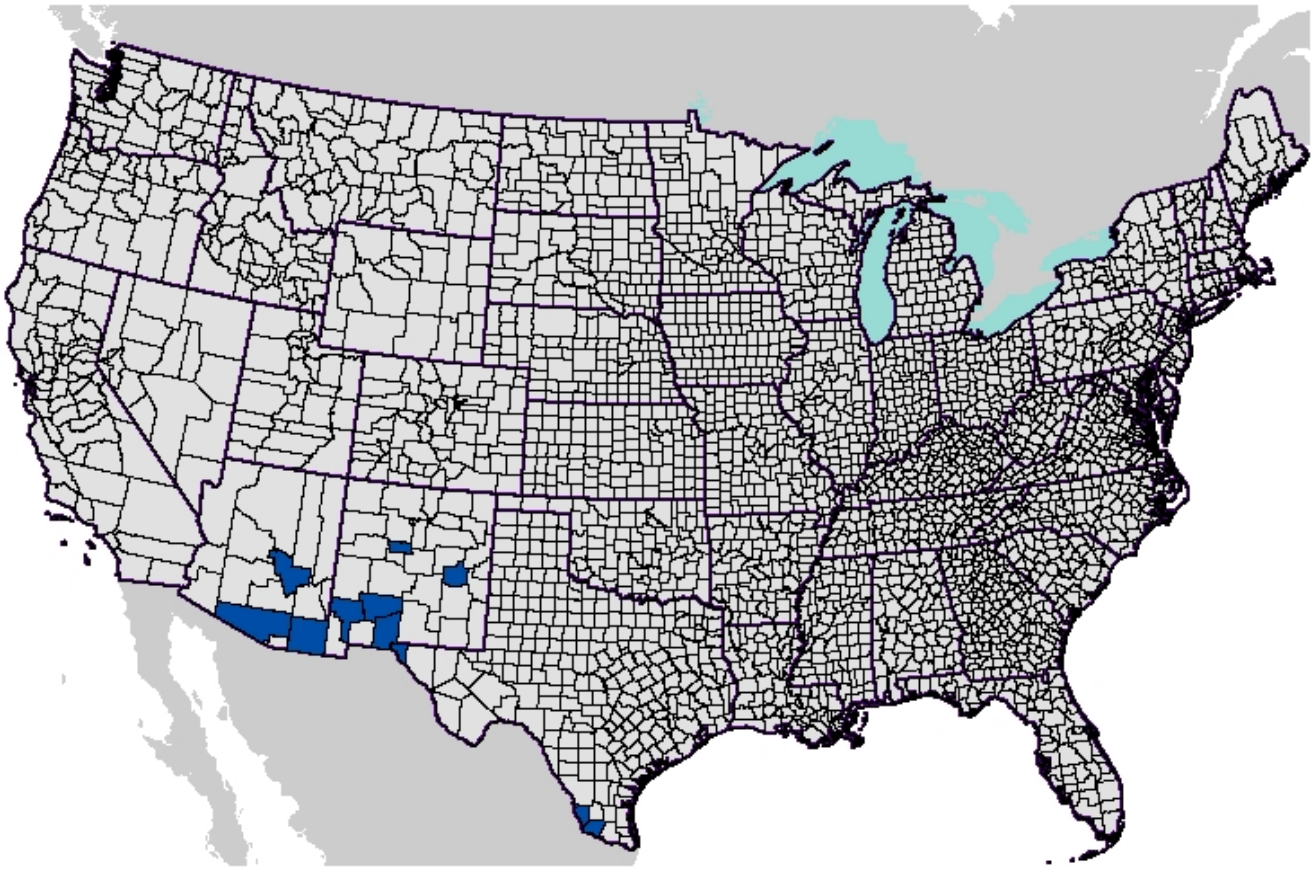
## Summary of VSV-Affected Premises

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

| ARIZONA | Confirmed Positive Premises | Suspect Premises | Premises Released from Quarantine | Current Premises Quarantined |
|---|---|---|---|---|
| Cochise County | 2 | 0 | 1 | 1 |
| Gila County | 1 | 0 | 0 | 1 |
| Pima County | 1 | 0 | 0 | 1 |
| Pinal County | 1 | 0 | 1 | 0 |
| **TOTAL: 4 COUNTIES** | **5** | **0** | **2** | **3** |
| **NEW MEXICO** | | | | |
| Bernalillo County | 1 | 0 | 0 | 1 |
| De Baca County | 2 | 0 | 0 | 2 |
| Dona Ana County | 5 | 1 | 3 | 3 |
| Eddy County | 1 | 0 | 1 | 0 |
| Grant County | 1 | 0 | 0 | 1 |
| Sierra County | 2 | 2 | 3 | 1 |
| **TOTAL: 6 COUNTIES** | **12** | **3** | **7** | **8** |

| TEXAS | Confirmed Positive Premises | Suspect Premises | Premises Released from Quarantine | Current Premises Quarantined |
|---|---|---|---|---|
| El Paso County<br>Starr County<br>Zapata County | 1<br>4<br>2 | 0<br>0<br>0 | 0<br>0<br>0 | 1<br>4<br>2 |
| **TOTAL: 3 COUNTIES** | **7** | **0** | **0** | **7** |
| **TOTAL PREMISES ALL STATES** | **24** | **3** | **9** | **18** |

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



**Map 2 (Cumulative). Counties with Premises Quarantined for VSV in 2020 (shaded in blue)**

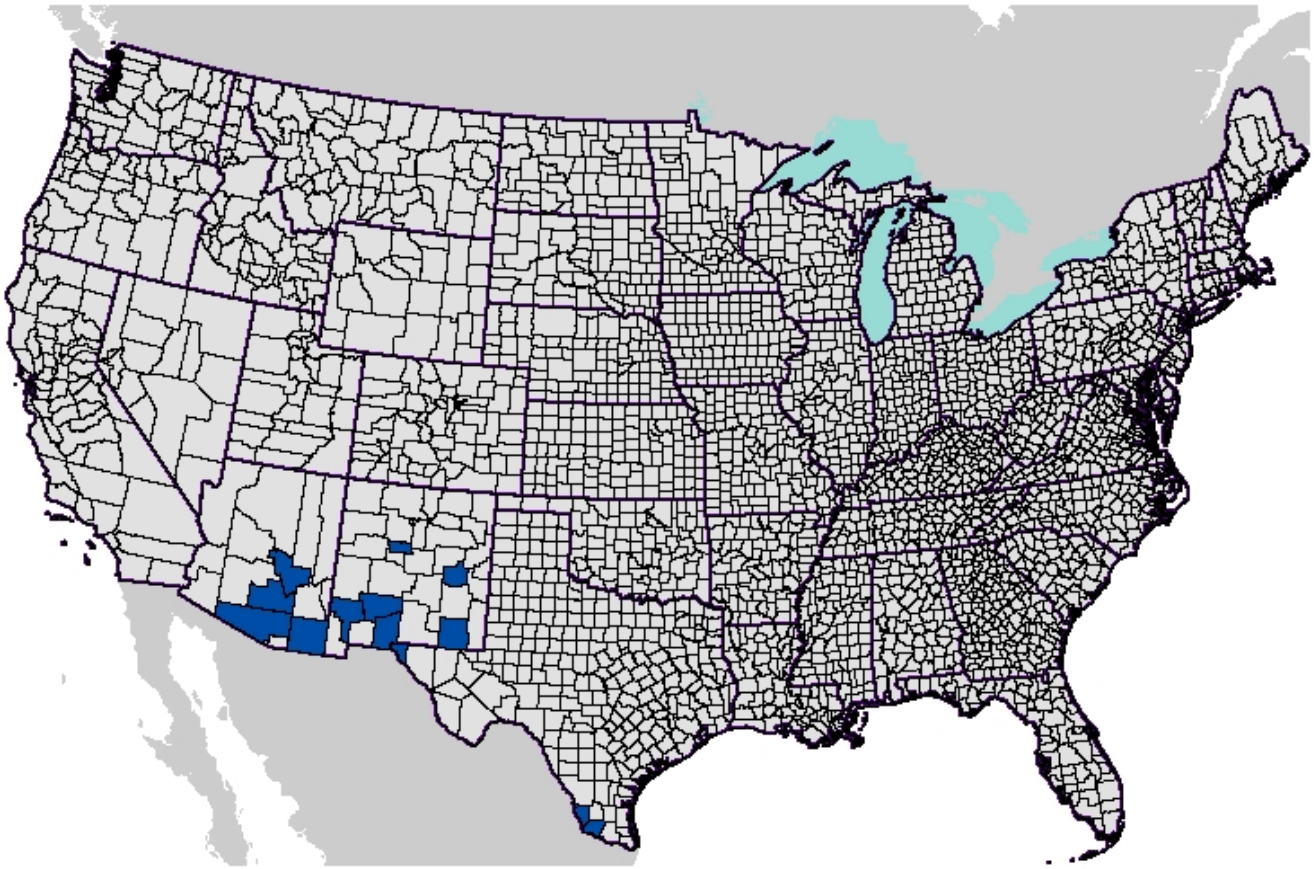


**Table 2. Cumulative count of species clinically affected on VSV-positive premises.**

| 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 |
|---|---|---|---|---|---|
| **ARIZONA** | 5 | 0 | 0 | 0 | 5 |
| **NEW MEXICO** | 15 | 0 | 0 | 0 | 15 |
| **TEXAS** | 4 | 3 | 0 | 0 | 7 |
| **TOTAL** | **24** | **3** | **0** | **0** | **27** |

## Table 3. VSV Serotypes Identified During the 2020 Outbreak

Both VSV-Indiana (VSV-IN) and VSV-New Jersey (VSV-NJ) serotypes have been identified during the 2020 outbreak. VSV-IN occurred in the U.S. in 2019, while VSV-NJ was last isolated in the U.S. in the 2014-2015 outbreak. Both serotypes are known to circulate in endemic cycles in southern Mexico. The last U.S. outbreak involving both serotypes occurred in 1997-1998.

| State | Premises with VSV-IN serotype confirmed | Premises with VSV-NJ serotype confirmed | Premises with VSV serotype unconfirmed* | Total VSV affected premises |
|---|---|---|---|---|
| **ARIZONA** | 4 | 0 | 1 | 5 |
| **NEW MEXICO** | 12 | 0 | 3 | 15 |
| **TEXAS** | 2 | 5 | 0 | 7 |
| **TOTAL** | **18** | **5** | **4** | **27** |

*Livestock in the southwestern and Rocky Mountain regions of the U.S. have been exposed to both VSV-NJ and VSV-IN in recent outbreak years. New infection with either serotype in 2020 can cause elevated antibody titers to both serotypes if previously encountered. The current infection serotype on a premises may not be able to be confirmed if elevated antibodies to both serotypes are present in the animals and antigen detection tests (RT-PCR and virus isolation) are negative. Additionally, VSV serotype will not be known in suspect cases in which diagnostic testing does not occur.

## Table 4. Timeline of Events

| Date | Event |
|---|---|
| April 13, 2020 | VSV index case for the U.S. confirmed at NVSL – Dona Ana County, New Mexico. New affected county confirmed – Sierra County, New Mexico |
| April 20, 2020 | New affected county confirmed – Eddy County, New Mexico |
| April 22, 2020 | VSV index case for Arizona confirmed – Cochise County, Arizona |
| April 23, 2020 | VSV index case for Texas confirmed – Starr County, Texas |
| April 27, 2020 | New affected county confirmed – Pinal County, Arizona |
| April 29, 2020 | New affected county confirmed – El Paso County, Texas |
| May 4, 2020 | New affected county confirmed – Grant County, New Mexico |
| May 6, 2020 | New affected counties confirmed – Gila County, Arizona; Zapata County, Texas |
| May 7, 2020 | New affected counties confirmed – Pima, County, Arizona; Bernalillo and De Baca Counties, New Mexico |