

# National Animal Health Laboratory Network

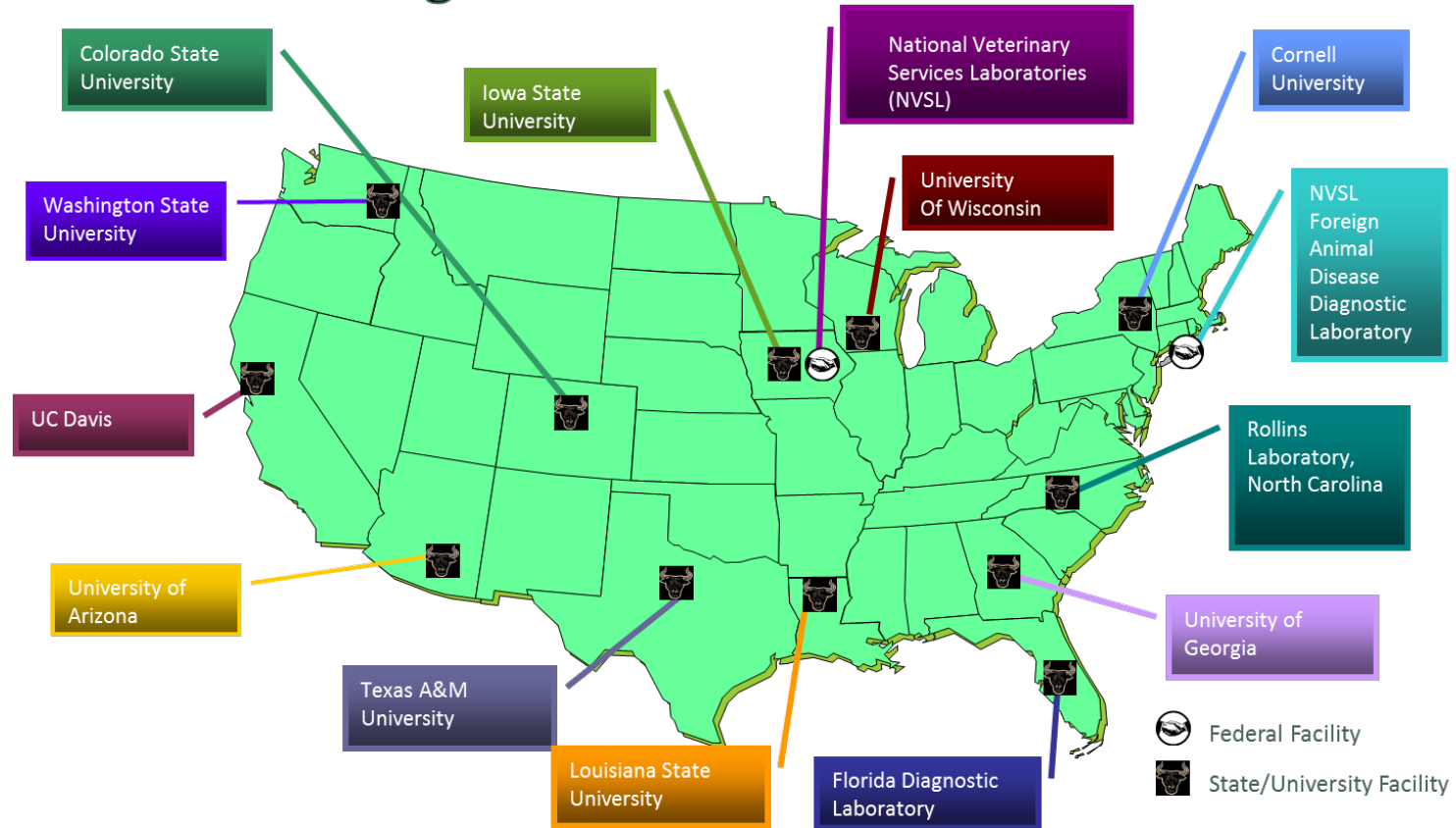
## Outbreak Response

USDA APHIS Veterinary Services



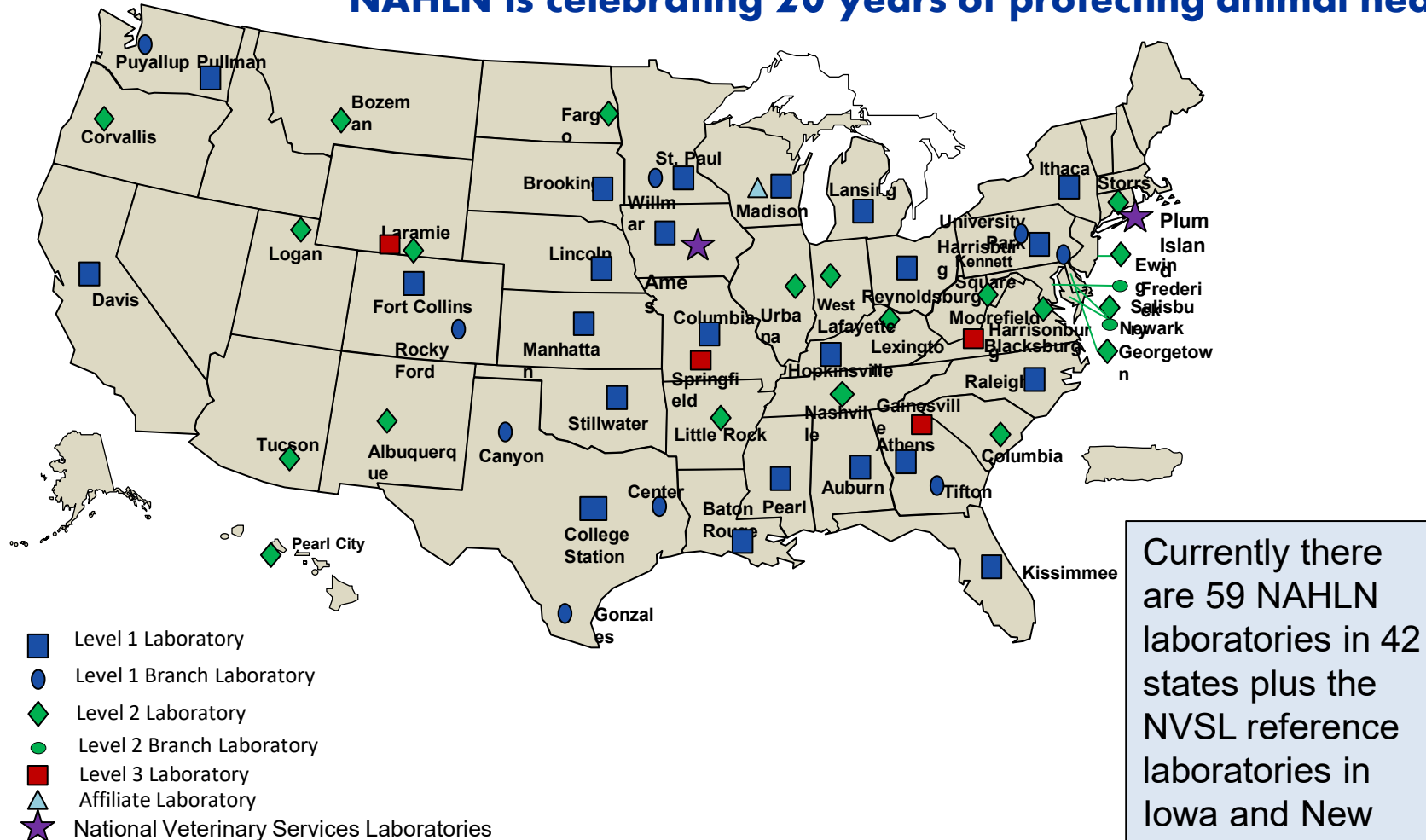
# National Animal Health Laboratory Network (NAHLN)

## The original 12 NAHLN laboratories



# NAHLN Laboratories in 2022

NAHLN is celebrating 20 years of protecting animal health.



Currently there are 59 NAHLN laboratories in 42 states plus the NVSL reference laboratories in Iowa and New York.

March 22, 2022



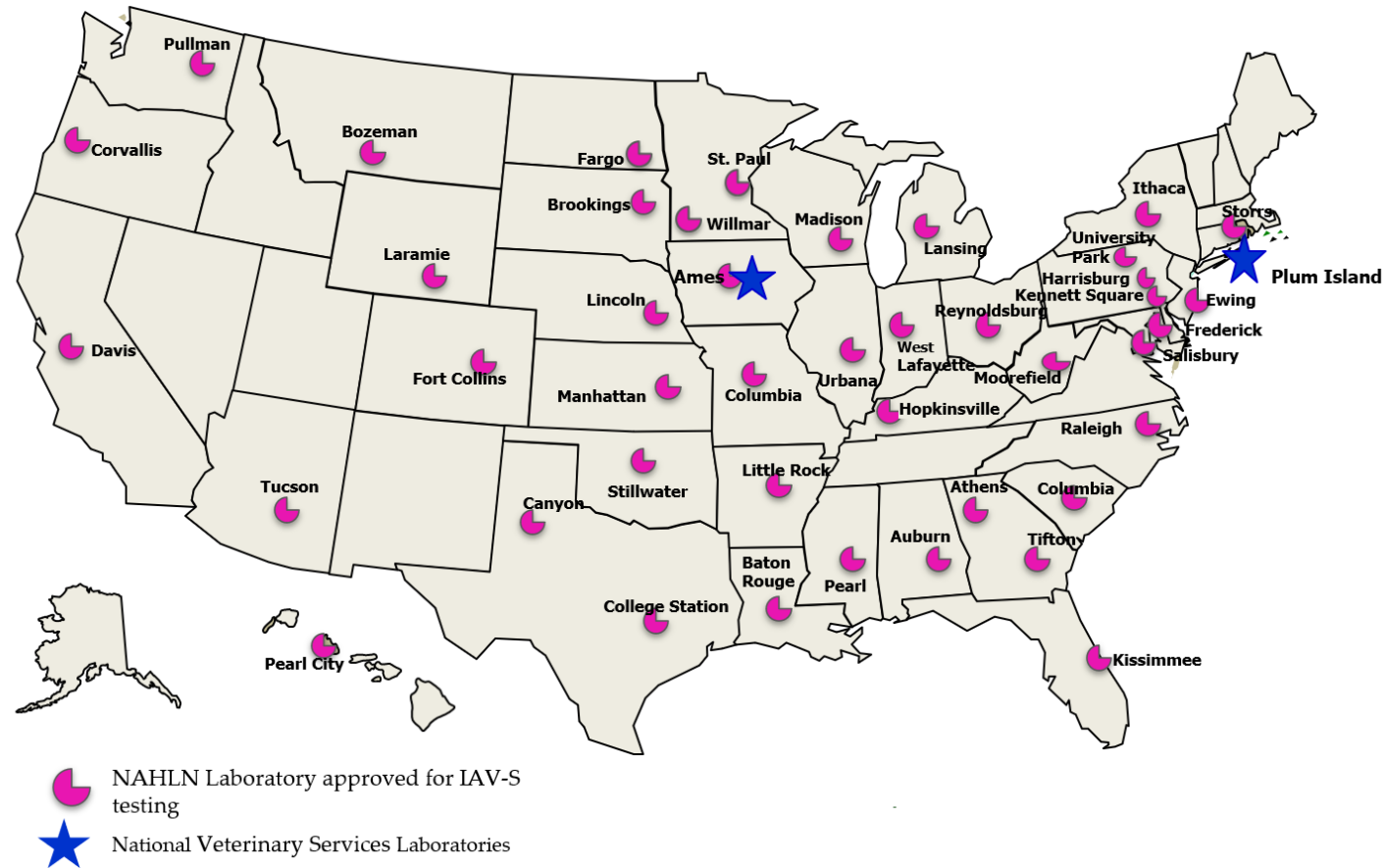
# The Purpose of the NAHLN

- Early detection of specific high-consequence animal diseases
  - Targeted surveillance based on population density & risk
- Rapid response following confirmation of disease
  - Surge capacity to test outbreak samples
- Appropriate recovery from an outbreak
  - Large numbers of samples tested to show freedom



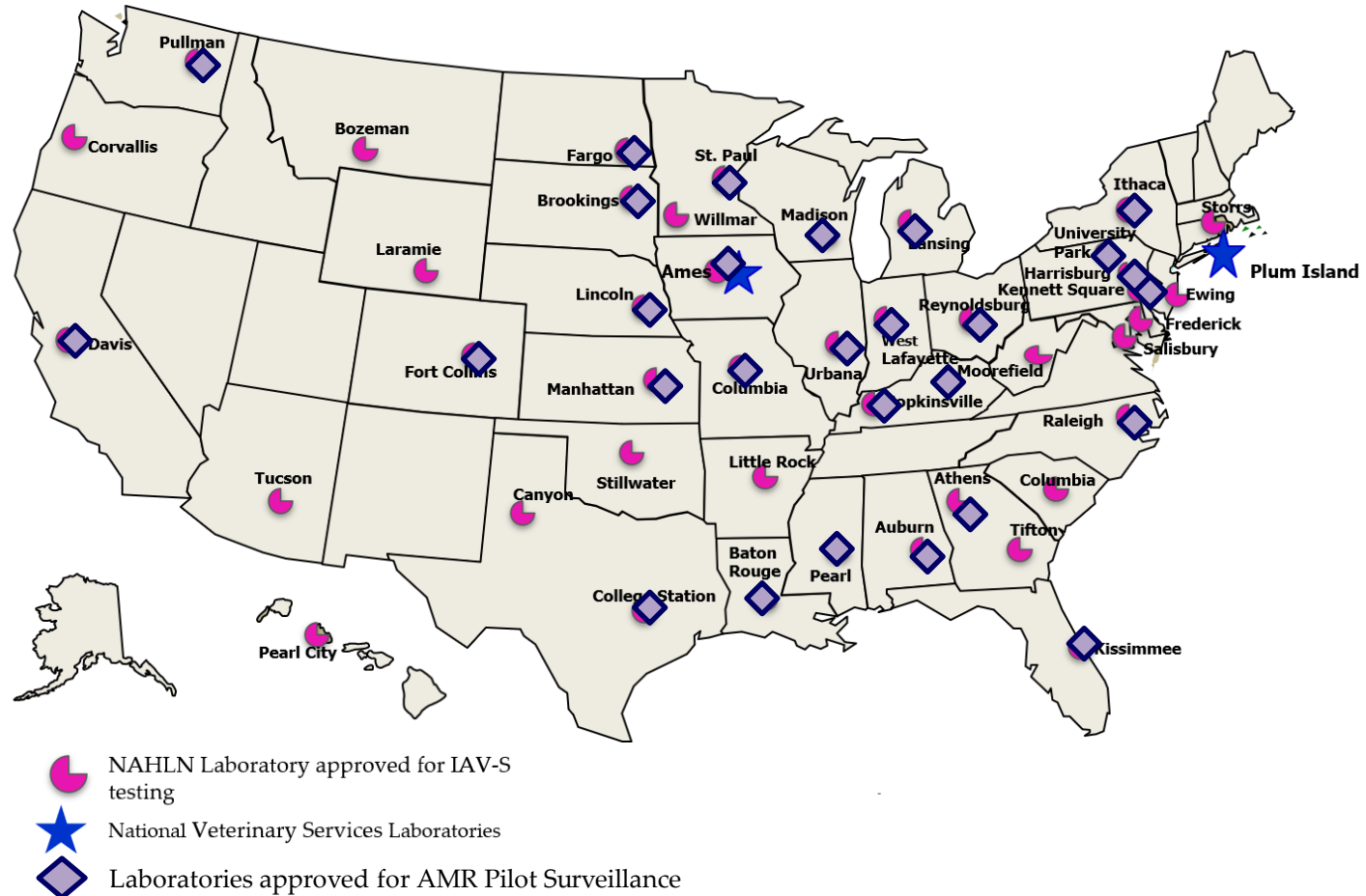
# Swine Influenza Surveillance- NAHLN

## NAHLN Laboratories Approved to Conduct IAV-S Testing



# Antimicrobial Resistance Surveillance- NAHLN

## NAHLN Laboratories Approved to Conduct AMR Surveillance



# Collecting Information

## Surveillance Data

- Swine influenza
- AMR

## Discussion

- Weekly cross- unit calls within Veterinary Services
- Monthly calls with Agricultural Research Service
- ARS has direct interaction with the CDC

## Response

- Reporting data real-time
- Correlating surveillance data



# Communication

## Internal

- NVSL
- Veterinary Services
- Incident Command Group

## External

- NAHLN Laboratories
- NASAHO
- Industry
- One Health Federal Interagency





# Communications

Introduction to APHIS AMR Pil... Participating Laboratories MIC Table SIR Breakouts

**USDA** AMR | MIC Table Data last updated Friday, July 15, 2022

Susceptible Intermediate Resistant No Interpretation No Breakpoint

Note: If table below is blank, the bacteria species is not tested for the chosen host animal species.

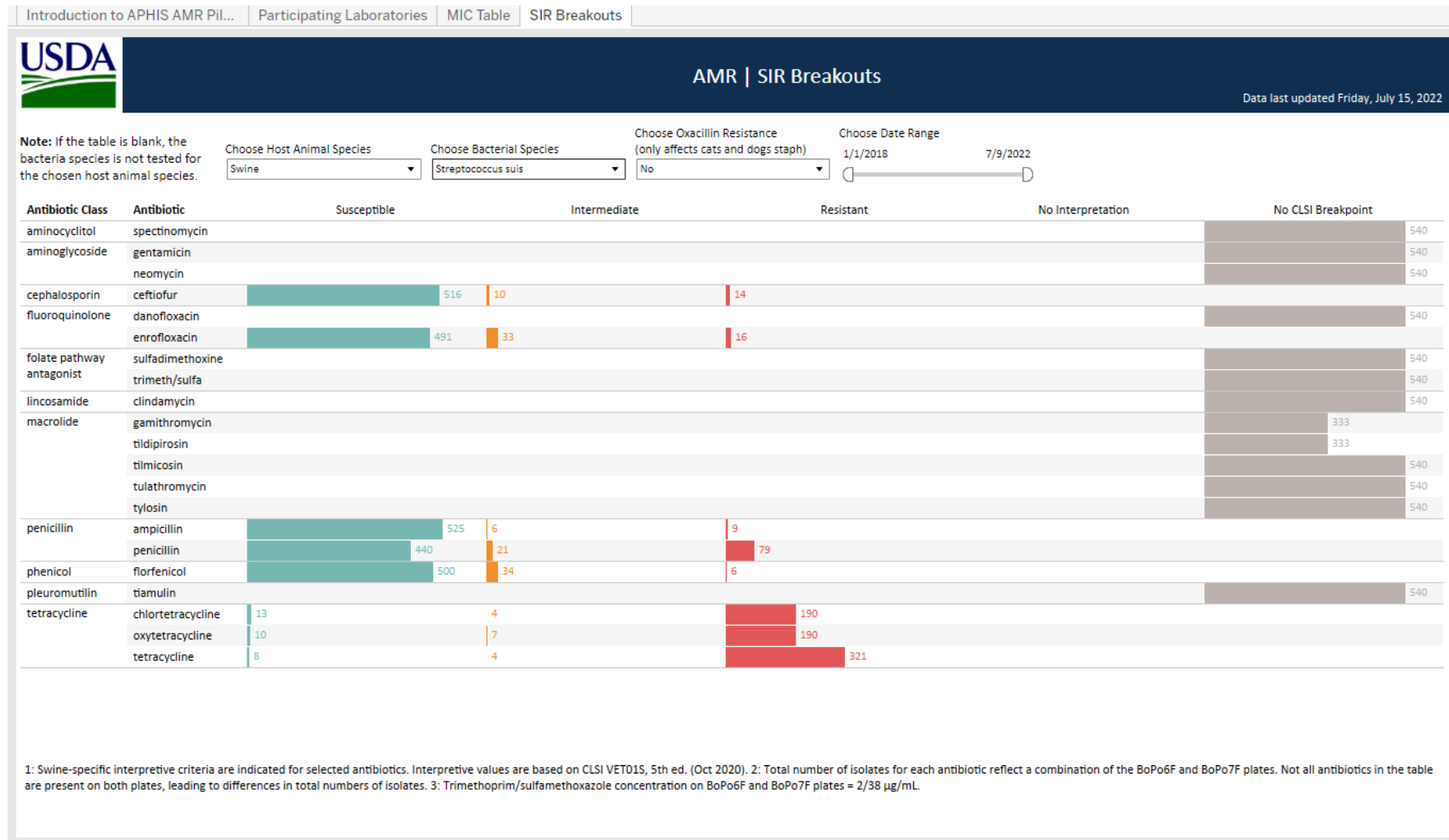
Choose Host Animal Species: Swine  
 Choose Bacterial Species: Streptococcus suis  
 Choose Oxacillin Resistance (only cats and dogs staph): No  
 Choose Date Range: 1/1/2018 - 7/9/2022

Antibiotic Class	Antibiotic	Total	≤0.125	≤0.25	=0.25	≤0.5	=0.5	≤1	=1	>1	≤2	=2	>2	≤4	=4	≤8	=8	>8	=16	>16	=32	>32	=64	>64	≤256	>256
aminocyclitol	spectinomycin	540														124			253				25	69		
aminoglycoside	gentamicin	540						140				120			187		71		7	15						
	neomycin	540												164			114		132			80	50			
cephalosporin	ceftiofur	540		430			45		26		15			10		9	5									
fluoroquinolone	danofloxacin	540	40		139		250		87	24																
	enrofloxacin	540	76		195		220		33			4	12													
folate pathway antagonist	sulfadimethoxine	540																							180	360
	trimeth/sulfa	540									520		20													
lincosamide	clindamycin	540		88			6		5			11			19		16		19	376						
macrolide	gamithromycin	333						73				13			14		16	217								
	tildipirosin	333						8				6			12		39		13	255						
	tilmicosin	540									18			24	22		59		9	256	3			5	144	
	tulathromycin	540						11				12			19	73	11		9		12		29	364		
	tylosin	540				46			68			11			5		3		1		12	394				
penicillin	ampicillin	540		516			9		6			2			1		1		1	4						
	penicillin	540	397		43		21		28			26			8		5	12								
phenicol	florfenicol	540		8			17		144		331			34		3	3									
pleuromutilin	tiamulin	540				89			131			107			26		22		38			31	96			
tetracycline	chlortetracycline	207				13			4			3			9		16	162								
	oxytetracycline	207				10			7			4					15	171								
	tetracycline	333				8			4			12			8		15	286								

1: Swine-specific interpretive criteria are indicated for selected antibiotics. Interpretive values are based on CLSI VET015, 5th ed. (Oct 2020). 2: Total number of isolates for each antibiotic reflect a combination of the BoPo6F and BoPo7F plates. Not all antibiotics in the table are present on both plates, leading to differences in total numbers of isolates. 3: Trimethoprim/sulfamethoxazole concentration on BoPo6F and BoPo7F plates = 2/38 µg/mL.



# Communications



Thank you!

Questions?

