Swine Disease Global Surveillance Report

Worldwide pork production is highly interconnected by trades between countries and markets, what could increase the risk of introduction of foreign pathogens into the US.

UNIVERSITY OF MINNESOTA

SHiC
Swine Health Information Center

PROJECT

The aim of these reports is to have a support system for near real-time identification of hazards that will contribute to the mission of assessing risks to the industry and ultimately, early detect, identify, or prevent occurrence of events, in partnership with official agencies, and with our international network of collaborators.

Monthly reports are created based on the systematic screening of multiple official data sources, such as government and international organization websites, and soft data sources like blogs, newspapers and unstructured electronic information from around the world that then are curated to build a raw repository. Afterward, a group of experts uses a multi-criteria rubric to score each event, based on novelty, potential direct and indirect financial impacts on the US market, credibility, scale and speed of the outbreak, connectedness, and local capacity to respond average is calculated. The output of the rubric is a final single score for each event which is then published in the report.

Disclaimer: These communications and the information contained therein are for general informational and educational purposes only, and are not to be construed as recommending or advocating a specific course of action.

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Swine Disease Global Surveillance Report

Monday, November 5, 2018 – Monday, December 3, 2018

Report highlights:

AFRICAN SWINE FEVER

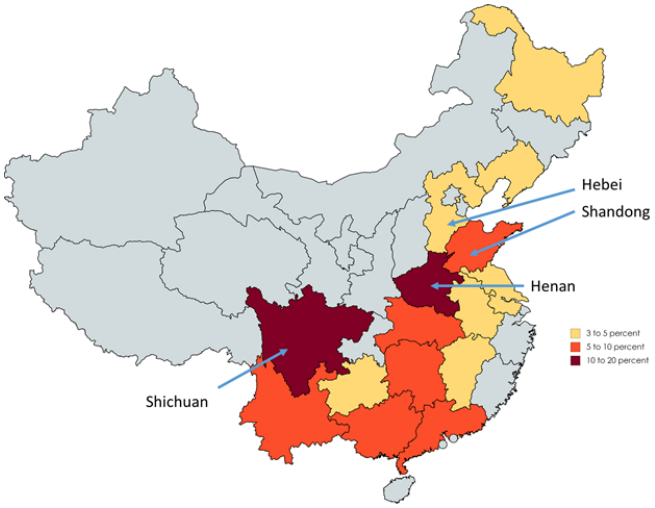
- **China**

November was another challenging month for the Chinese authorities and swine industry, as we saw a significant expansion of the African swine fever (ASF) epidemic, continuing its southward spread into six new provinces (being reported in a total of 20 of 34 provinces since August), including Sichuan and the country capital, Beijing (Map 1).

Concerns regarding current infection status of Hebei and Shandong provinces are rising. Preventing pigs from infected areas from traveling into Shandong, which is the country's number four pork producer, has been a major challenge since August. Last week, in Beijing, the chief of the Animal Husbandry and Veterinary Bureau in the Ministry of Agriculture and Rural Affairs, declared that restrictions on trans-regional transport of pigs and products have heavily affected the production cycle of some companies and disrupted historic trade routes.

	Province	First outbreak	Number of Outbreaks	Animals destroyed
1	Liaoning	8/1/2018	22	73808
2	Henan	8/14/2018	2	3893
3	Jiangsu	8/15/2018	2	14783
4	Zhejiang	8/17/2018	1	1864
5	Anhui	8/17/2018	9	12965
6	Heilongjiang	9/1/2018	2	290
7	Inner Mongolia	9/12/2018	5	1010
8	Jilin	9/17/2018	4	1459
9	Tianjin	10/10/2018	1	639
10	Shanxi	10/16/2018	3	545
11	Yunnan	10/21/2018	2	1157
12	Hunan	10/28/2018	6	13756
13	Guizhou	10/14/2018	2	59
14	**Chongking**	**11/5/2018**	**1**	**309**
15	**Hubei**	**11/8/2018**	**2**	**304**
16	**Fujian**	**11/9/2018**	**1**	**4521**
17	**Jiangxi**	**11/9/2018**	**4**	**1800**
18	**Sichuan**	**11/16/2018**	**1**	**40**
19	**Shanghai**	**11/17/2018**	**1**	**314**
20	**Beijing**	**11/20/2018**	**3**	**11499**

Map 1: Chinese provinces that have reported ASF outbreaks since last August. In red: new cases during November.



Map 2: Concentration of pig production by province: Brown = 10 to 20 percent (Sichuan, Henan); Orange = 5 to 10 percent (Shandong, Hubei, HuNan, Guangdong, Guangxi, YunNan); Yellow = 3 to 5 percent (HeiLongJiang, LiaoNing, JiangSu, AnHui, JiangXi, GuiZhou). Source: Gain report 8/15/18.

Taiwan has reported for the third time the identification of ASF virus in pork products coming from China. Efforts have been boosted at immigration checkpoints targeting visitors arriving in Taiwan from China since it reported its first ASF outbreak, to keep undeclared pork products from entering the neighboring island. A total of 265 violations were recorded between September 1 and November 25, according to Taiwan's Bureau of Animal and Plant Health Inspection and Quarantine.

The products were pork sausages carried by tourists at Taiwan's Kaohsiung International Airport. Although the virus may have been inactivated due to cooking, it increases attention on the likelihood of spread through air passengers. In this regard, China´s Xiamen Airlines resumed serving pork meat on its menu last week after banning it. ASF is a highly stable and temperature resistant virus (requiring heat-inactivation at 56 degrees C for 70 minutes or 60 degrees C for 20 minutes). Even though the inactivation rate increases with high temperature, it is not proportional to the temperature change, highlighting the importance of quality assurance and best practices implementation on food processing.

- **Europe**

Last Friday, the European Food Safety Authority (EFSA) published three reports updating the ASF epidemiological situation in the region. In the reports, experts have assessed the effectiveness of wild boar control measures in the region including intensive hunting around the buffer area, quick and safe carcass removal and fencing. This has resulted in recommendations for ASF control in four different epidemiological scenarios. Interestingly, the results show that in the vast majority of introductions in domestic pig holdings, direct contact with infected domestic pigs or wild boar was excluded as the likely route of introduction.

CLASSICAL SWINE FEVER

- **Japan**

Two weeks ago, Japan reported the second outbreak of classical swine fever (CSF) on a farm in Gifu prefecture since last September, when the first case of the disease since its eradication (2007) was reported by the country. Several cases in wild boar were reported as follow ups in these last three months.

December Report Map: *The locations mentioned in this report are colored in the map below according to* ***significance score****, which is based on the identified hazards (list of worldwide events below) and potential risks to the US swine industry****: 1: blue** – no change in status this month, **2: red** - needs extra attention as the situation is dynamic; **3: black** - the change this month requires consideration of change in practices to reduce exposure by the US industry.*

References:

- https://www.taiwannews.com.tw/en/news/3587304
- https://www.reuters.com/article/us-china-swinefever-airlines-pork/chinas-xiamen-airlines-puts-pork-back-on-the-menu-after-swine-fever-misunderstanding-idUSKCN1NV0C2
- https://www.aphis.usda.gov/animal_health/emergency_management/downloads/sop/sop_asf_e-e.pdf
- http://www.researchtrends.net/tia/article_pdf.asp?in=0&vn=11&tid=38&aid=5378
- https://www.reuters.com/article/us-china-swinefever-market/china-worries-about-hog-supply-as-african-swine-fever-reaches-beijing-idUSKCN1NS064
- https://www.efsa.europa.eu/en/topics/topic/african-swine-fever
- http://m.focustaiwan.tw/news/asoc/201812030014.aspx

Month events

Event #	**1**						
Date of the event:		9/17/18					
Date of publication:		11/22/18					
Location:	Hunjiang District, Baishan, Jilin **China**			First report of ASF outbreak in wild boar since August.			
Disease type:		FMD					
Species affected:		1/0/1900 **Wildboar**					
				Morbidity:	-	Mortality:	-
Significance score		**2.00**	*	Reporting source:	OIE		
Event #	**2**						
Date of the event:		10/30/18					
Date of publication:		11/8/18					
Location:	Hepu Township, Luotian, Huanggang, Hubei **China**			Since the first outbreak in the province of Hubei another 4 outbreaks were reported in follow-ups. Including both farm as backyard animals. The event is continuing.			
Disease type:		ASF - African Swir					
Species affected:		Farm animals Porcine					
				Morbidity:	-	Mortality:	-
Significance score		**1.00**	*	Reporting source:	OIE		
Event #	**3**						
Date of the event:		-					
Date of publication:		11/2/18					
Location:	Fengdu prefecture, Chongqing **China**			First outbreak in the province of Chongqing			
Disease type:		ASF					
Species affected:		Farm animals Porcine					
				Morbidity:	-	Mortality:	-
Significance score		**1.00**	*	Reporting source:	OIE		
Event #	**4**						
Date of the event:		11/6/18					
Date of publication:		9/18/18					
Location:	, Fujian **China**			First ASF outbreak reported in the province of Fujian. Measures applied: Movement control inside the country, Surveillance outside containment and/or protection zone, Screening Traceability, Quarantine, Official destruction of animal products,Official disposal of carcasses, by-products and waste, Stamping out, Zoning, Disinfection, Disinfestation, Vaccination permitted (if a vaccine exists),No treatment of affected animals			
Disease type:		ASF					
Species affected:		Farm animals Porcine					
				Morbidity:	-	Mortality:	-
Significance score		**1.00**	*	Reporting source:	OIE		
Event #	**5**						
Date of the event:		11/7/18					
Date of publication:		9/18/18					
Location:	, Jiangxi **China**			First ASF outbreak reported in the province of Jiangxi. Measures applied: Movement control inside the country, Surveillance outside containment and/or protection zone, Screening Traceability, Quarantine, Official destruction of animal products,Official disposal of carcasses, by-products and waste, Stamping out, Zoning, Disinfection, Disinfestation, Vaccination permitted (if a vaccine exists),No treatment of affected animals			
Disease type:		ASF - African Swir					
Species affected:		Farm animals Porcine					
				Morbidity:	-	Mortality:	-

Event #	**6**								
Date of the event:		11/15/18							
Date of publication:		11/16/18							
Location:	Gifu-city, Gifu								
	Japan								
Disease type:		CSF - Classical Sw							
Species affected:		Farm animals							
		Porcine							
Significance score		**1.00**	*						

On 15th November, a fattening pig was found to be sick with fever and reported to the Gifu Central Livestock Hygiene Service Centre (LHSC) by a veterinarian. Official veterinarians of the LHSC immediately visited the farm to conduct clinical inspection. Blood samples were collected from the sick pig and the other pigs in the same farm. Blood samples were tested for classical swine fever virus by specific RT-PCR at the Gifu Central LHSC and found to be positive on 16th November. On 16th November, the National Institute of Animal Health (NIAH) carried out sequencing analysis of the amplified products and NIAH confirmed that this was a case of classical swine fever.

Morbidity:	-						Mortality:	-	
Reporting source:		OIE							

Event #	**7**								
Date of the event:		11/19/18							
Date of publication:		11/19/18							
Location:	Liangxia Township, Jinshan District, Shanghai								
	China								
Disease type:		ASF - African Swir							
Species affected:		Farm animals							
		Porcine							
Significance score		**1.00**	*						

Third chinese municipality reporting an ASF outbreak since the first outbreak in August.

Morbidity:	15.92						Mortality:	-	
Reporting source:		OIE							

Event #	**8**								
Date of the event:		11/19/18							
Date of publication:		11/16/18							
Location:	, Sichuan								
	China								
Disease type:		ASF							
Species affected:		Farm animals							
		Porcine							
Significance score		**2.00**	*						

First ASF outbreak reported in the province of Sichuan. Measures applied: Movement control inside the country, Surveillance outside containment and/or protection zone, Screening
Traceability, Quarantine, Official destruction of animal products,Official disposal of carcasses, by-products and waste, Stamping out, Zoning, Disinfection, Disinfestation, Vaccination permitted (if a vaccine exists),No treatment of affected animals

Morbidity:	-						Mortality:	-	
Reporting source:		OIE							

Event #	**9**								
Date of the event:		11/20/18							
Date of publication:		11/24/18							
Location:	Qinglonghu Township, Fangshan District, Beijing								
	China								
Disease type:		FMD							
Species affected:		Farm animals							
		Porcine							
Significance score		**2.00**	*						

First ASF outbreak reported in the province of Beijing. Measures applied: Movement control inside the country, Surveillance outside containment and/or protection zone, Screening
Traceability, Quarantine, Official destruction of animal products,Official disposal of carcasses, by-products and waste, Stamping out, Zoning, Disinfection, Disinfestation, Vaccination permitted (if a vaccine exists),No treatment of affected animals

Morbidity:	-						Mortality:	-	
Reporting source:		OIE							