

# Pig Production System and ASF Situation in China

**Xu Quangang**

*China Animal Health and Epidemiology Center*

2021.01.08

# Pig production system in China

Farm scale (Divided by annual No. of pig supplied)	2010		2018		Increased number of farms
	No. of farms	Proportion (%)	No. of farms	Proportion (%)	
1-49	59086923	95.7100	29862082	94.6217	-29224841
50-99	1685279	2.7298	982969	3.1147	-702310
100-499	742772	1.2032	527708	1.6721	-215064
500-999	145175	0.2352	112628	0.3569	-32547
1000-2999	53876	0.0873	52770	0.1672	-1106
3000-4999	11721	0.0190	10990	0.0348	-731
5000-9999	5915	0.0096	6228	0.0197	313
10000-49999	3558	0.0058	3630	0.0115	72
50000+	121	0.0002	443	0.0014	322
	61,735,340		31,559,448		-30,175,892

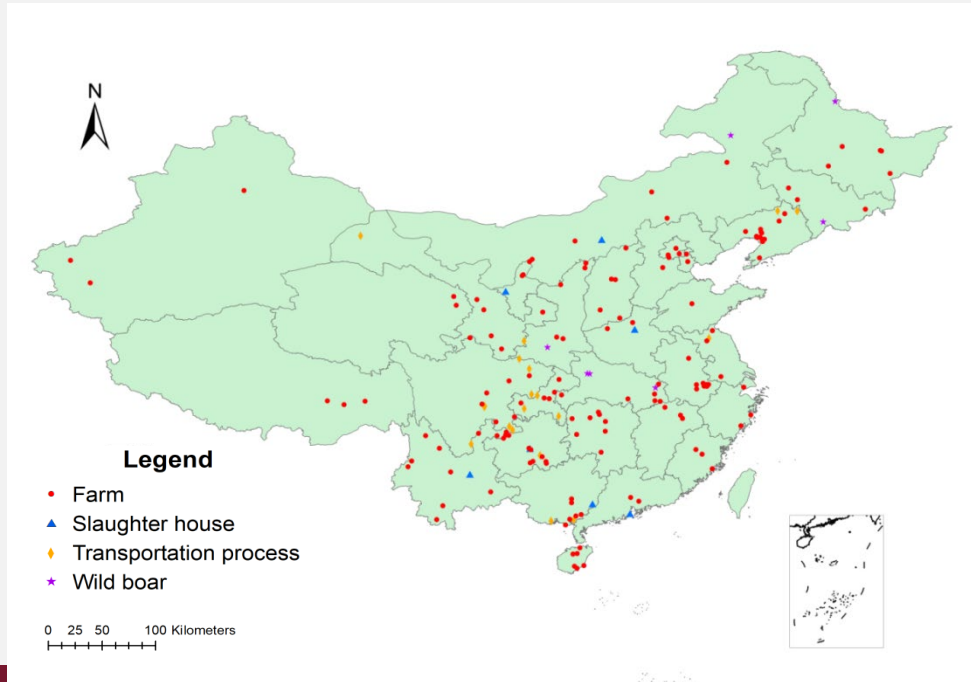
- The total number of pig farms has decreased significantly
  - 30 million
- The reduced pig farms are mainly backyard farms and small-scale farms
- Commercial pig farms is increasing
- Backyard farms and small-scale farms still account for the vast majority

# Pig production system in China

Farm scale (Divided by annual No. of pig supplied)	Proportion of annual No. of pig supplied			
	2016(%)	2017(%)	2018(%)	2019(%)
1-49	26.2	25.23	23.7	21.0
50-99	10.8	10.2	9.4	8.9
100-499	18.1	17.65	17.8	17.1
500-999	12.3	11.07	10.8	11.2
1000-2999	11.4	11.75	12.3	13.4
3000-4999	5.4	5.45	5.7	6.6
5000-9999	5.1	5.56	5.8	6.4
10000-49999	7.7	8.78	9.1	10.0
50000+	3	4.31	5.4	5.4

# ASF Situation in China (by Dec 31, 2020)

## Spatial distribution

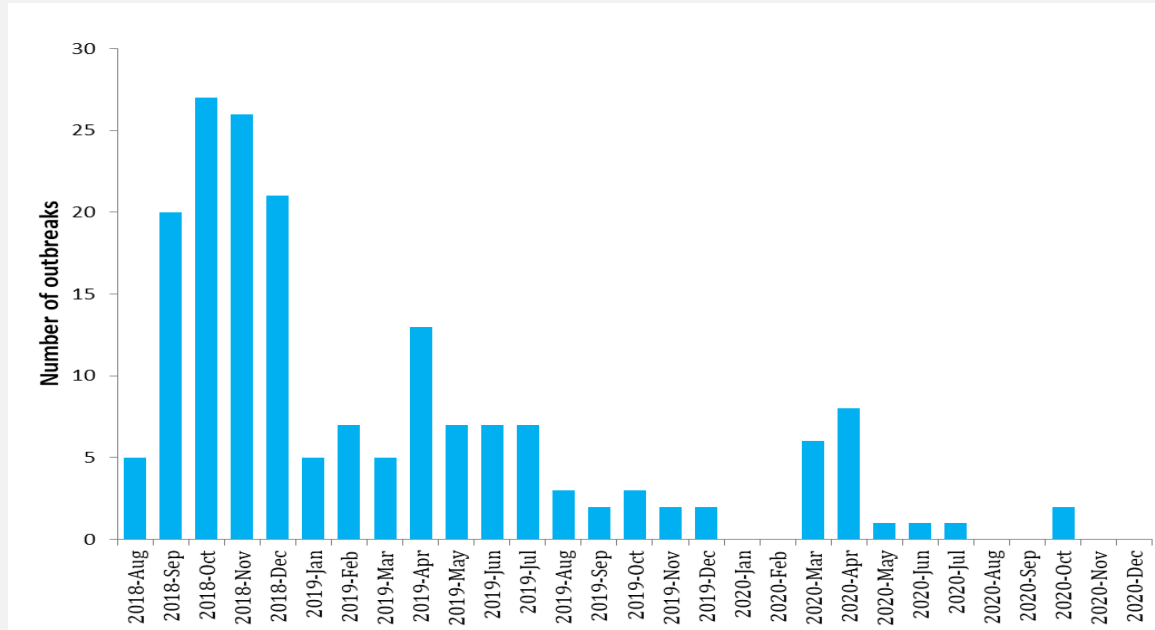


181 outbreaks totally

- Farm: 150
- Slaughter house: 5
- Transportation: 20
- Wild boar: 6

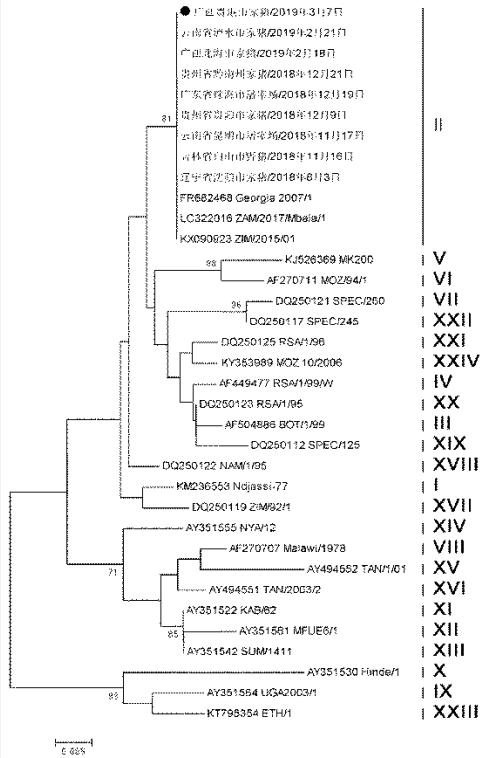
# ASF Situation in China (by Dec 31, 2020)

## Temporal distribution



- 181 outbreaks totally
- Culling: > 1,200,000

# 3 different strains

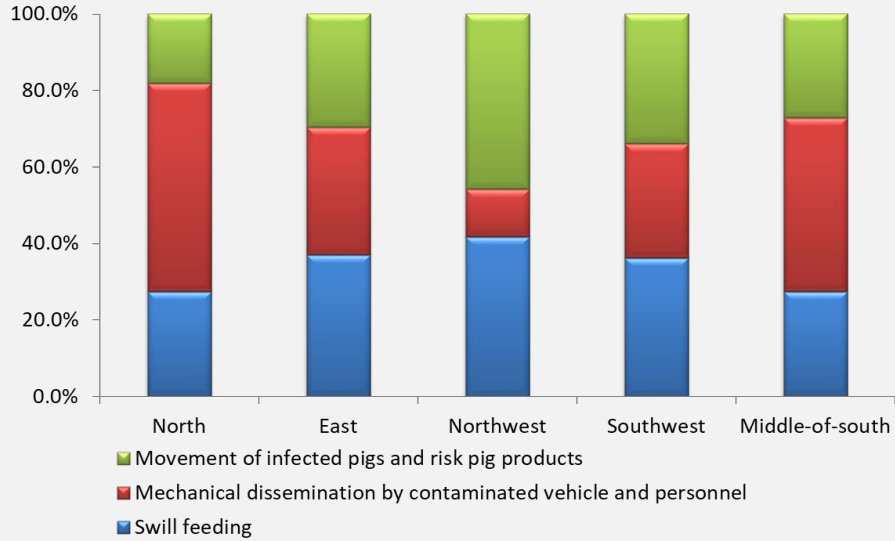


## IGR/TRS 序列比对分析

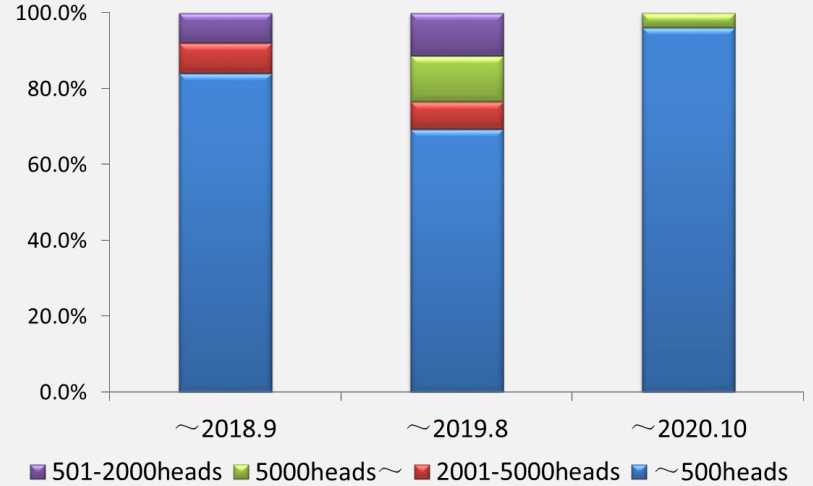
地点	毒株	IGR/TRS序列(I73R-I329L)	分型
中国	广西贵港市家猪 2019年3月7日	GGAATATATA GGAATATATA GGAATATATA GAAATATATA	III
	辽宁省沈北家猪等 2018年8月3日	GGAATATATA GGAATATATA ----- GAAATATATA	II
	吉林省白山市野猪 2018年11月16日	GGAATATATA ----- GAAATATATA	I
格鲁吉亚	Georgia 2007/1	GGAATATATA ----- GAAATATATA	I
	Irkutsk 2017	GGAATATATA ----- GAAATATATA	I
	Rostov09	GGAATATATA ----- GAAATATATA	I
俄罗斯	Lipetsk2016	GGAATATATA GGAATATATA ----- GAAATATATA	II
	Voronezh 2016	GGAATATATA GGAATATATA ----- GAAATATATA	II
	Estonia 2014	GGAATATATA GGAATATATA ----- GAAATATATA	II
欧洲	Bel13/Grodno	GGAATATATA GGAATATATA ----- GAAATATATA	II
	Ukr12/Zapo	GGAATATATA GGAATATATA ----- GAAATATATA	II
	LT14/1490	GGAATATATA GGAATATATA ----- GAAATATATA	II
非洲	Pol14/Sz	GGAATATATA GGAATATATA ----- GAAATATATA	II
	ZAM/2017/Mbala/1		无序列信息
	ZAM/13/Mbala		无序列信息

# Transmission routes of ASF in different periods

		Swill feeding	Mechanical dissemination by contaminated vehicle and personnel	Movement of infected pigs and risk pig products
Phase I (— 2018.9)	No.	10	8	7
	Pro.	40%	32 %	28 %
Phase II (— 2019.8)	No.	48	54	22
	Pro.	38.7%	43.5 %	17.7 %
Phase III (— 2020.12)	No.	0	3	23
	Pro.	0	11.5 %	88.5 %



Transmission routes in different regions



Herd distribution in different periods



# Main ASF prevention and control measures

---

- Forbid swill feeding
  - Quarantine must be conducted before pigs sold
  - Vehicles should be registered
  - ASF test in every batch before slaughtered
  - Reinforcing screening and surveillance
  - Optimizing emergency treatment
  - Regionalized management
-



**Thank you for listening**

