

Similarities and Differences between Two Waves of Outbreaks of Peste Des Petits Ruminants in China

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To the Editor

Peste Des Petits Ruminants (PPR) caused by Peste Des Petits Ruminant Virus (PPRV) was considered as the most important viral disease in small ruminants, which had high morbidity and mortality [1]. In 2007, the first wave PPR outbreak occurred in Tibet, China [2]. In the past three years (January 2011-November 2013), no PPR cases were reported in Tibet or elsewhere in China [3]. However, in the end of 2013, PPR outbreak of wave 2 initially occurred in Xinjiang, China, and then spreaded throughout mainland China [4,5].

To compare with the two waves of outbreaks, we obtained some similarities and differences, specifically: First, there were some similarities as follows. a). They all initially emerged in the two largest frontier rural and pastoral areas, the first outbreak point of wave 1 was Rutog County (bordering with India and close to Pakistan), Tibet, southwest China, meanwhile, the first outbreak point of wave 2 was Huocheng County (bordering with Kazakhstan and close to Tajikistan), Xinjiang, northwest China; b). PPRVs almost belonged to Lineage IV, and were close to viral strains from Pakistan and Tajikistan. Second, the differences were mainly manifested in the following points. a). Wave 2 had more widespread ranges and harmness than wave 1 (only restricting in Tibet); b). Huocheng County had better transportation network (Railways, highways, national road) than Rutog County (Only national road), which might contribute to big outbreak of wave 2; c). Wave 1 and wave 2 occurred in summer and winter, respectively; d). Live goat transaction markets (especially from Shandong province) played an important role

for the spread of wave 2; e). Blind importation and illegal cross-region transportation of unidentified goats resulted in the spread of wave 2; f). Vaccine distribution and vaccination were also not in place in wave 2.

From the above comparisons, we could obtain some valuable experiences and lessons, and further take corresponding actions or measures in response to the ongoing spread and future eradication of PPR in China.

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