

## **What is not being mentioned is the source of Schmallenberg virus: where did it come from?**

European virologists, epidemiologists, veterinarians, physicians and others have served as arbovirologists for decades. Excellent work was done, diseases described, viruses isolated, antibody detected, reagents made and distributed, meetings held and students educated.

Most of the early work focused on human diseases and the details of mosquito and tick life-cycles and biology. When bluetongue began to be considered as a disease of economic importance, culicoids were added to the list of insects to study.

By now, millions of culicoids must have been collected, ground and tested for viruses. So why only now has Schmallenberg virus appeared? \*

Was it in Europe before now? Is it a recent reassortant of Akabane virus (not previously known in Europe) and another (what?) virus? Has it been introduced only recently? How? Intentionally?

Perhaps the methods used to detect viruses in culicoids have been specific for bluetongue viruses, in which case only bluetongue viruses would have been detected. Are there pools of culicoids stored in freezers in Europe, pools that contain Akabane virus or Akabane-like viruses but which have not been properly and rigorously tested? Are only state-run laboratories involved in these studies, rather than universities, whose findings usually are more transparent?

In the bedlam that usually follows the discovery of a new and important pathogen, retrospective studies usually await a time when the epidemiologic situation settles down and investigators have time to put their feet on their desks and think. That time cannot come soon enough. If this was anything like an intentional (and successful) introduction, there will be another and another after that.

Use of the word "intentional" is only paranoia if it is not the case.

It appears to me that the excellent groups working to study and prevent this virus from spreading, while well intentioned, have not been formed into a pan-European, cohesive organization with someone in charge. OIE and WHO might count cases but they are not suited to the sort of work that needs doing, such as answering the questions "How long has Schmallenberg virus been in Europe?" and "Where did it come from?"

Charles H. Calisher, Ph.D.  
Professor Emeritus, Arthropod-borne and Infectious Diseases Laboratory  
Department of Microbiology, Immunology and Pathology  
Fort Collins, CO 80523-1690  
College of Veterinary Medicine and Biomedical Sciences  
Colorado State University, USA  
<[calisher@cybersafe.net](mailto:calisher@cybersafe.net)>

\* *Schmallenberg virus had been isolated from culicoides collected last year (2011) in Belgium and Denmark*