

# NOT ALL FLU VACCINES ARE UPDATED WITH RELEVANT STRAINS AND TESTED WITH REAL-WORLD CHALLENGE STUDIES.

**VETERA® is the only vaccine with a demonstrated 6-month DOI against a Florida sublineage clade 1 EIV challenge.<sup>3</sup>**

## EQUINE INFLUENZA STRAIN COMPARISON

VETERA® 2XP	CALVENZA® EHV/EIV	Prestige® 2	Fluvac Innovator® EHV - 4/1
A/eq/Ohio/2003 Florida clade 1 (H3N8)	A/eq/Ohio/2003 Florida clade 1 (H3N8)	A/eq/Florida/RW/13 Florida Clade 1 (H3N8)	A/eq/Kentucky/1997 American (H3N8)
A/eq/Richmond/1 2007 Florida clade 2 (H3N8)	A/eq/Kentucky/2 1995 American (H3N8)	A/eq/Kentucky/2002 American (H3N8)	
A/eq/Kentucky/2 1995 American (H3N8)	A/eq/New Market/2 1993 Eurasian (H3N8)	A/eq/Richmond/1/07 Florida Clade 2 (H3N8)	

“The greater the antigenic distance, or mismatch, between a vaccine strain and the virus encountered by a horse, the greater the chance that the horse will become infected.”<sup>2</sup>

## RECENT EQUINE INFLUENZA OUTBREAK ISOLATES (2019-2020)<sup>1</sup>

- All viruses isolated and characterised from the outbreaks in 2019 and early 2020 were from the clade 1 Florida sublineage.
- The gene sequences were aligned with those of the recommended vaccines virus South Africa/2003 (Ohio/2003) for clade 1 viruses and Richmond/2007 for clade 2 viruses.

1. OIE Expert Surveillance Panel on Equine Influenza Vaccine Composition, OIE Headquarters, 16 April 2020.

2. Elton, D., Cullinane, A., (2013) Equine influenza: Antigenic drift and implications for vaccines. *Equine Vet. J.* 45, 768-769.

3. Equine Influenza Challenge (BI study number: 01 V9 6mo DOI OH/03).

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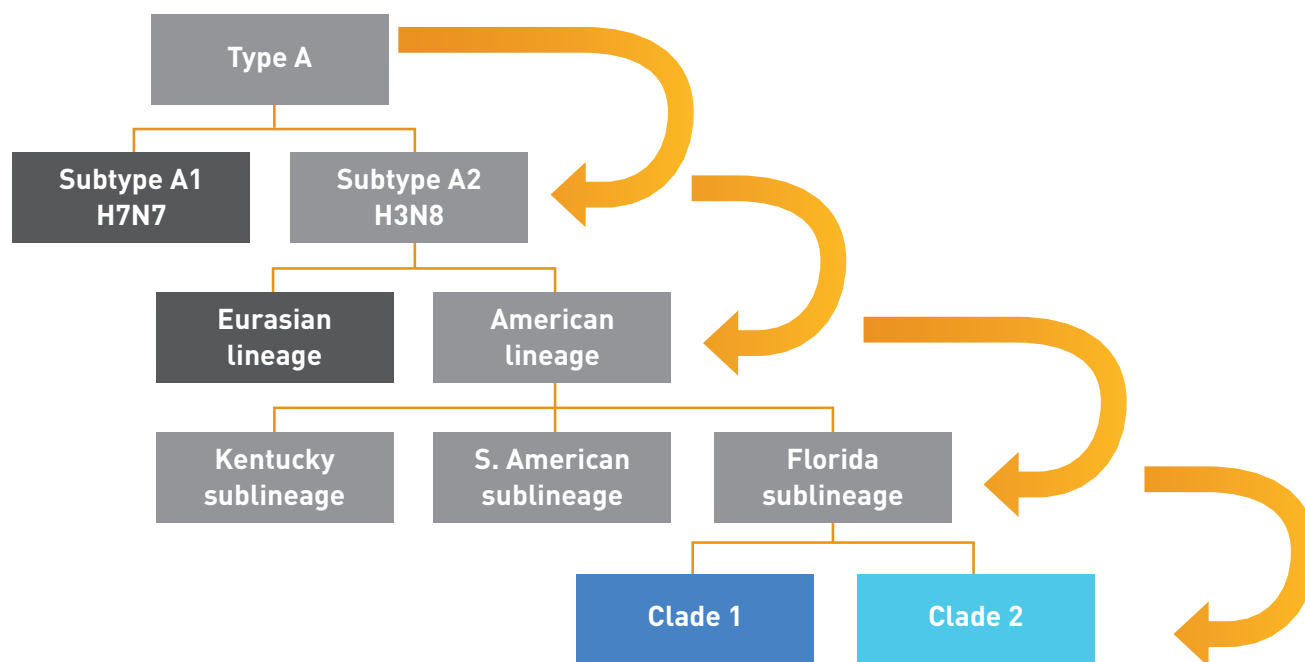
# PROTECTING AGAINST EQUINE INFLUENZA

Over the course of time, equine flu strains adapt and change genetically from older strains to newer, more clinically relevant strains. This process is known as antigenic drift. This process may affect the efficacy of vaccines that have not been updated.

CALVENZA® EIV/EHV and VETERA® contain Florida sublineage clade 1, the lineage most likely to affect horses in the US today.<sup>1</sup> VETERA® also has the advantage of being updated with Florida sublineage clade 2, as recommended by the Expert Surveillance Panel (OIE) on equine influenza virus (EIV).

“Vaccinated horses may be protected from clinical signs of disease, yet those same animals can shed live virus.”<sup>2</sup>

## ANTIGENIC DRIFT AT WORK



“With all other things being equal, a vaccine that contains recent strains that represent those circulating in the field will offer better protection against infection than one that contains less closely related strains.”<sup>2</sup>