

What's New With PCV2

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Big Bug Day 2025



South West Vets



Lets go back in time.....it is 2005



Hurricane Katrina made land fall and decimated New Orleans... 1,392 people died



Pope John Paul II passed way.



YouTube was invented.



Toby Keith's top Billboard song "As good as I once was"



Paul Martin was Prime Minister of Canda



No Stanly cup was awarded..... 2004-2005 NHL lock out (only twice 1919 and 2005)



And I am a new Vet only a few years after Graduation (and I had hair).

What you
see on farm



What you
see on farm





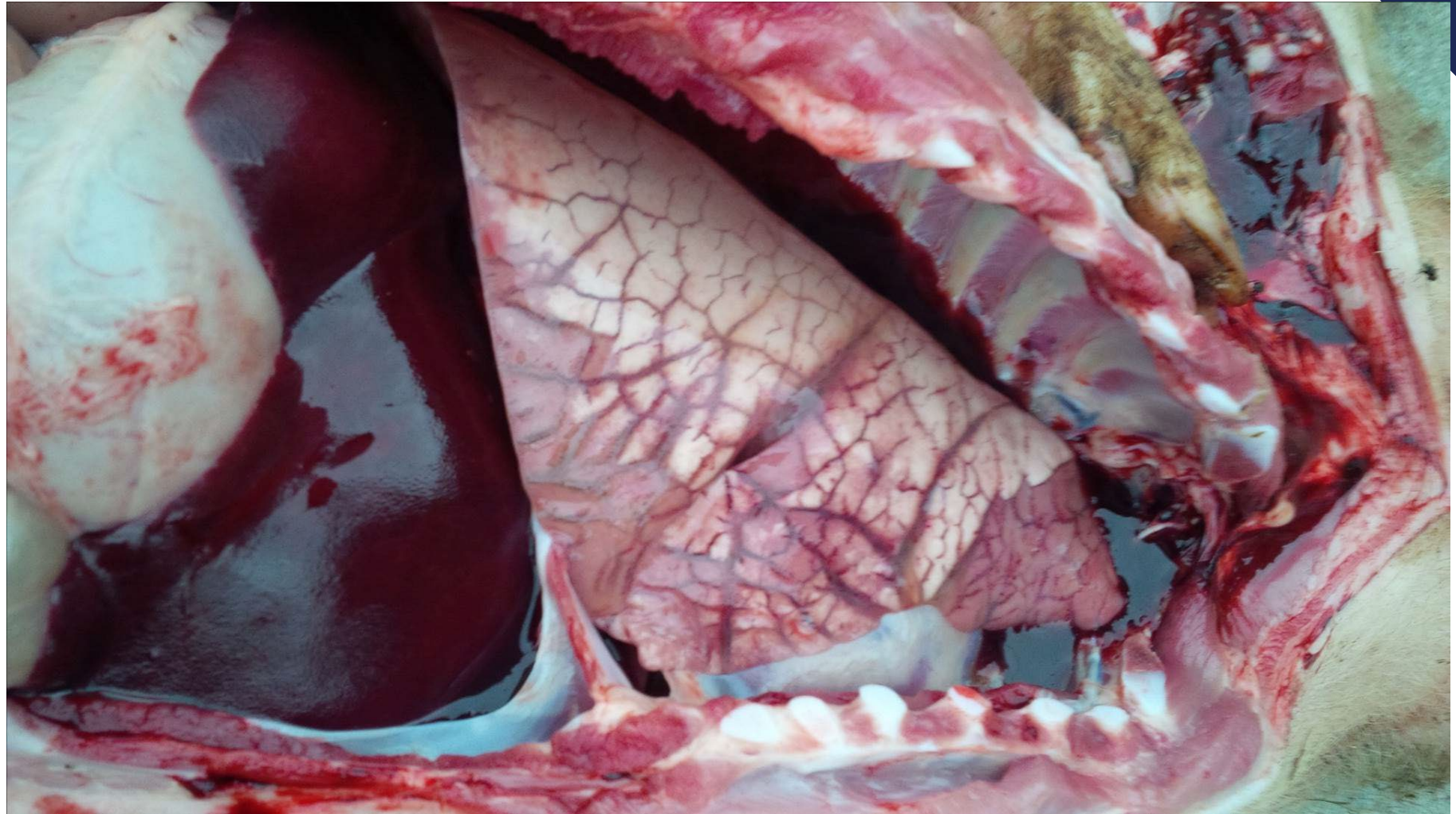


Mortality was significant

- Pigs just faded away and died or were euthanized
- Most of the losses could start in late nursery but most were early-to-mid finisher
- 20-45% mortality was not unheard of



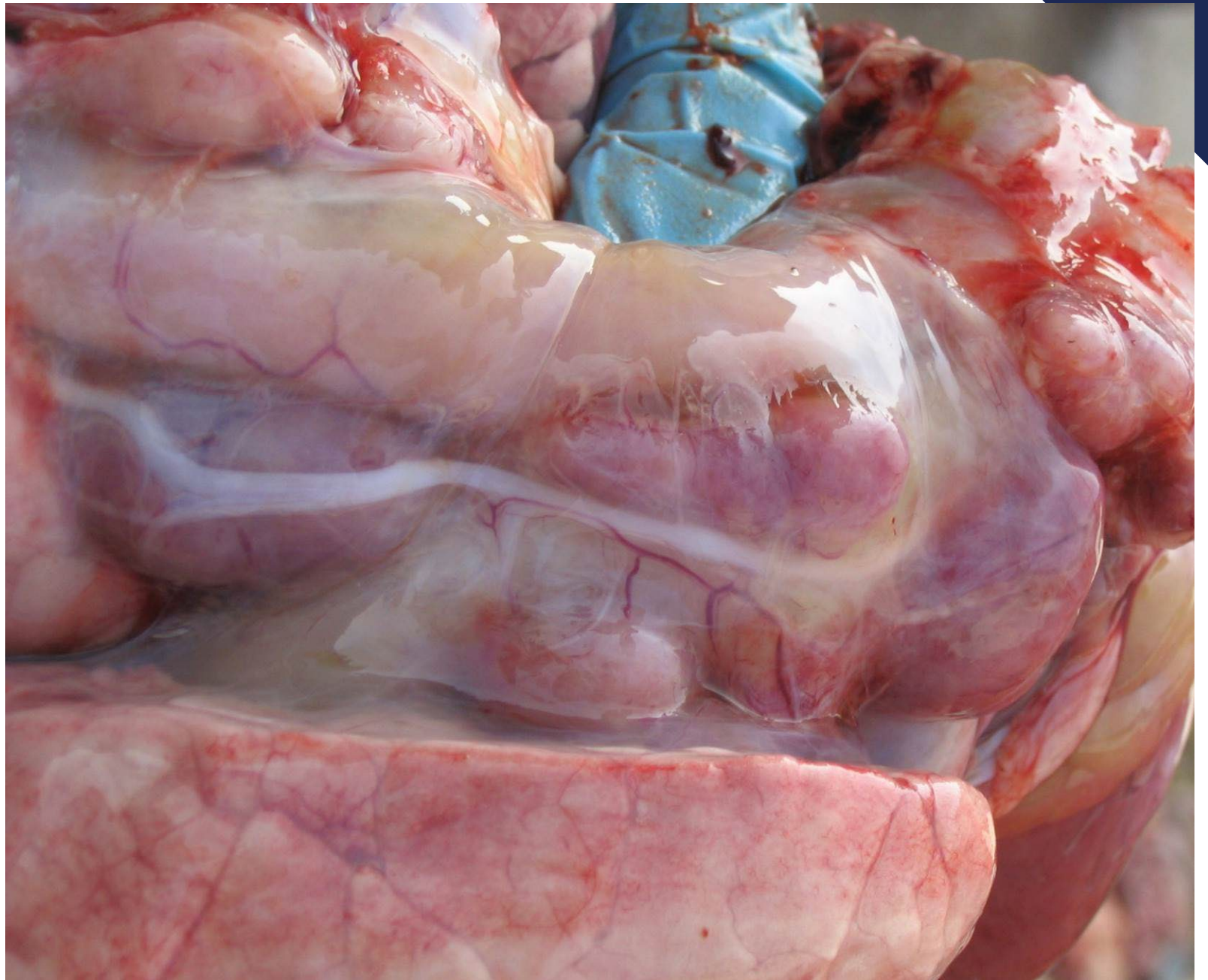
What you
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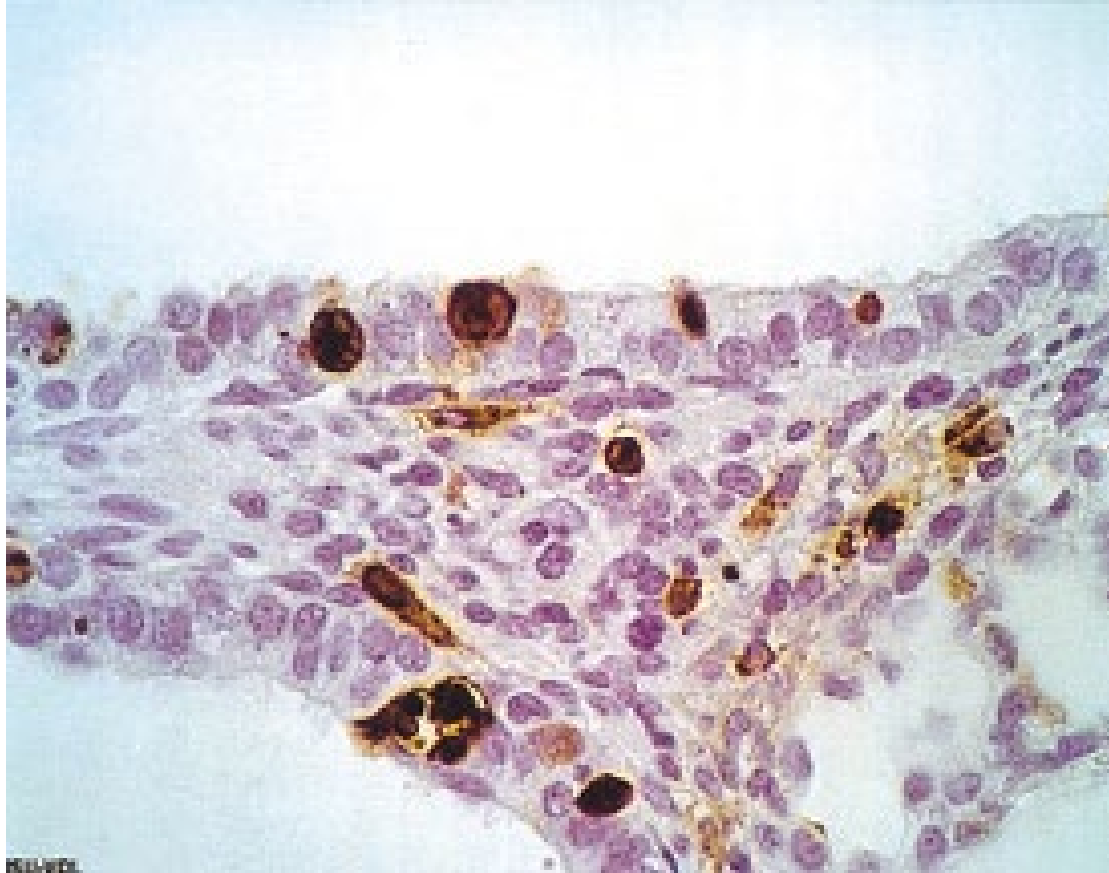


What you
see on farm



And this...





Porcine Circovirus Type 2 (PCV2) is identified as consistent cause

Early on its primarily PCV2
a and b

This was our first introduction to Clinical PCV2

Medication had little to NO impact on outcome

We Tried all sorts of things!



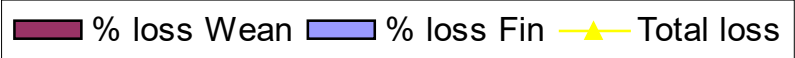
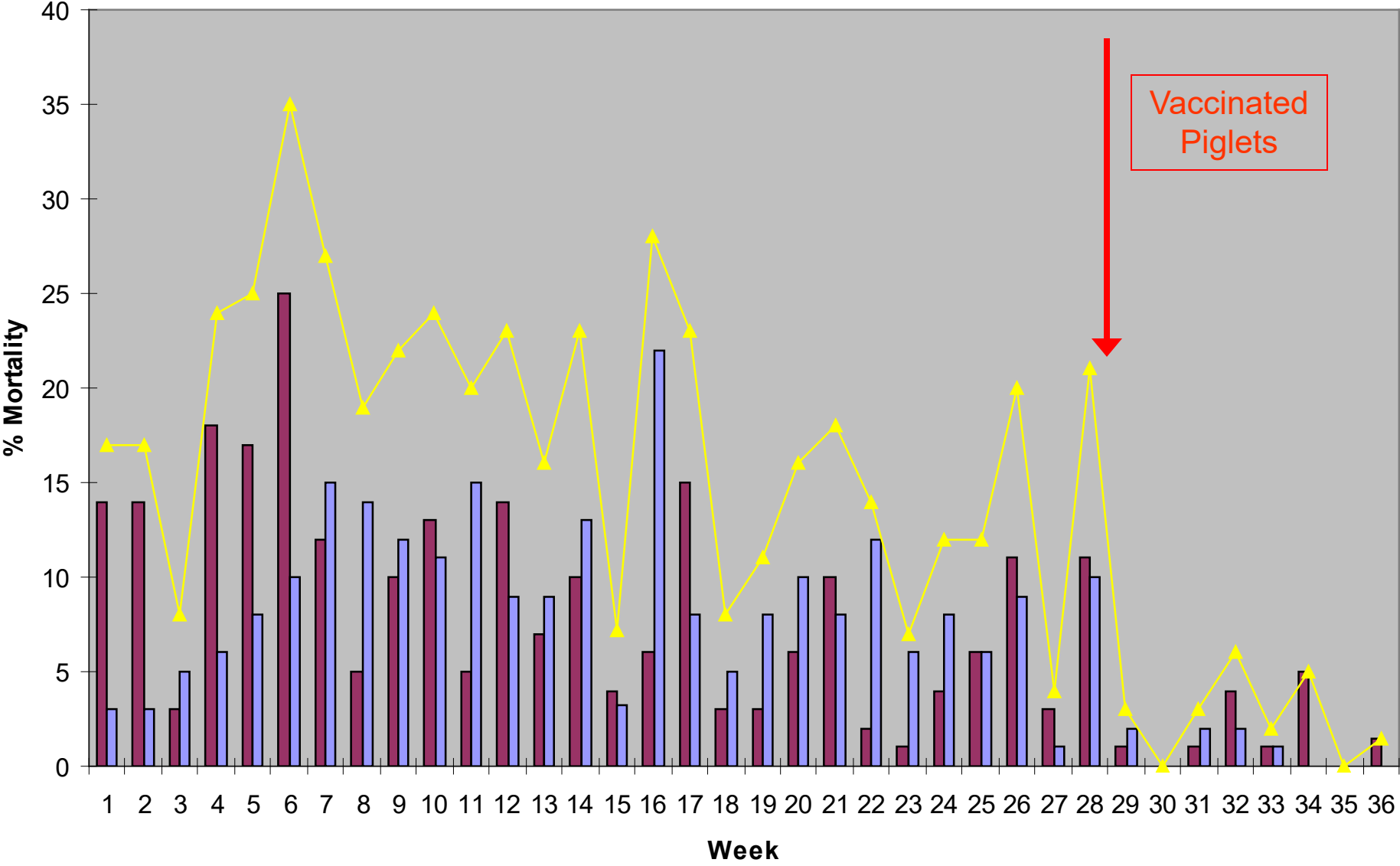
South West Vets



Vaccine saves the day!

- Sow vaccine shows great improvement
 - Short lived
- Piglet vaccines come on the market and all is saved.....RIGHT!
 - These were mostly Type a vaccines and some b
- You can do no wrong
- Some barns are performing better than historical records

Nursery Finisher Mortality

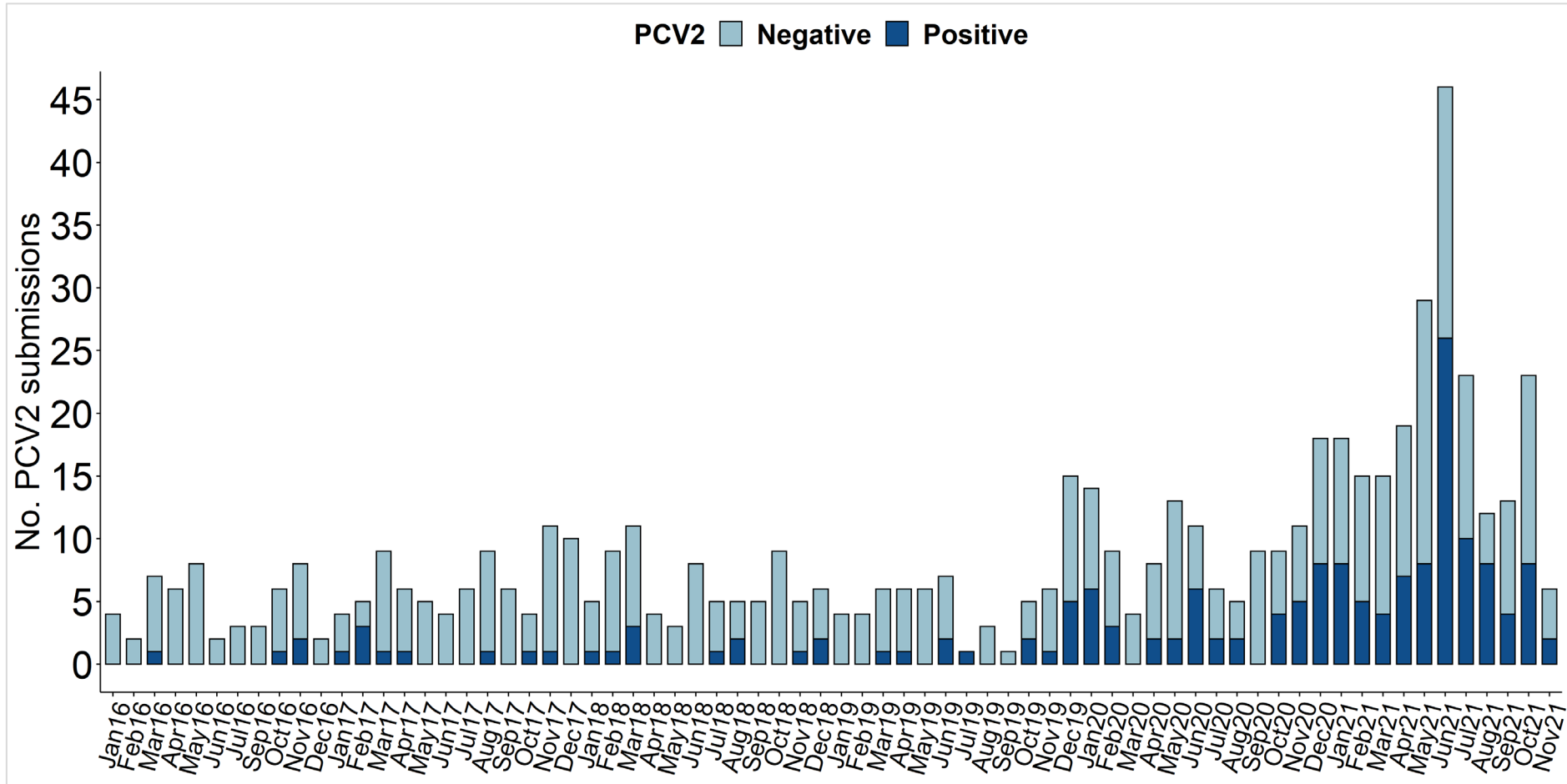




The Honeymoon or Paradise Phase

- There was a stretch until 2019 where PCV2 was not an issue
- Some hick ups but nothing serious
 - One dose vs two doses
 - Maternally derived antibodies
 - Gilt and sow herd stability
- PCV2 Type d is identified
 - Believed to be a variant of b
 - All major vaccines are able to show cross protection of type a vaccines to type d

An increase in PCV2 submissions/month



Producers & veterinarians asked: what has changed with PCV2?



Then we
start
seeing
this again

- But this time its starting younger (sometimes at weaning)
- The signs are not as clear cut as before
 - and complicated with other diseases... often PRRS.

Case definition of Circovirus...

Clinical signs of PCVAD

- Weight loss, scour, respiratory issues, high mortality rate (especially in younger pigs), enlarged LN's etc...

AND

- Lung tissue PCR positive results (which can be further sequenced)

AND

- Histological changes suggestive of PCV2

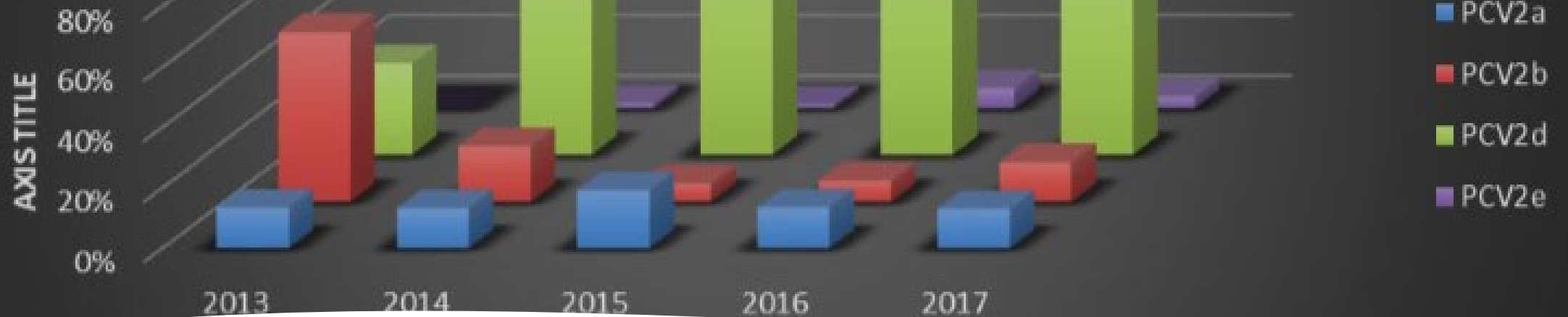
WITH

- POSITIVE IHC testing for PCV2 (telling us we have the specific virus ie. Circo in the lesion)

THAN

- Conclusion that Circovirus (PCV2) is a clinical disease concern

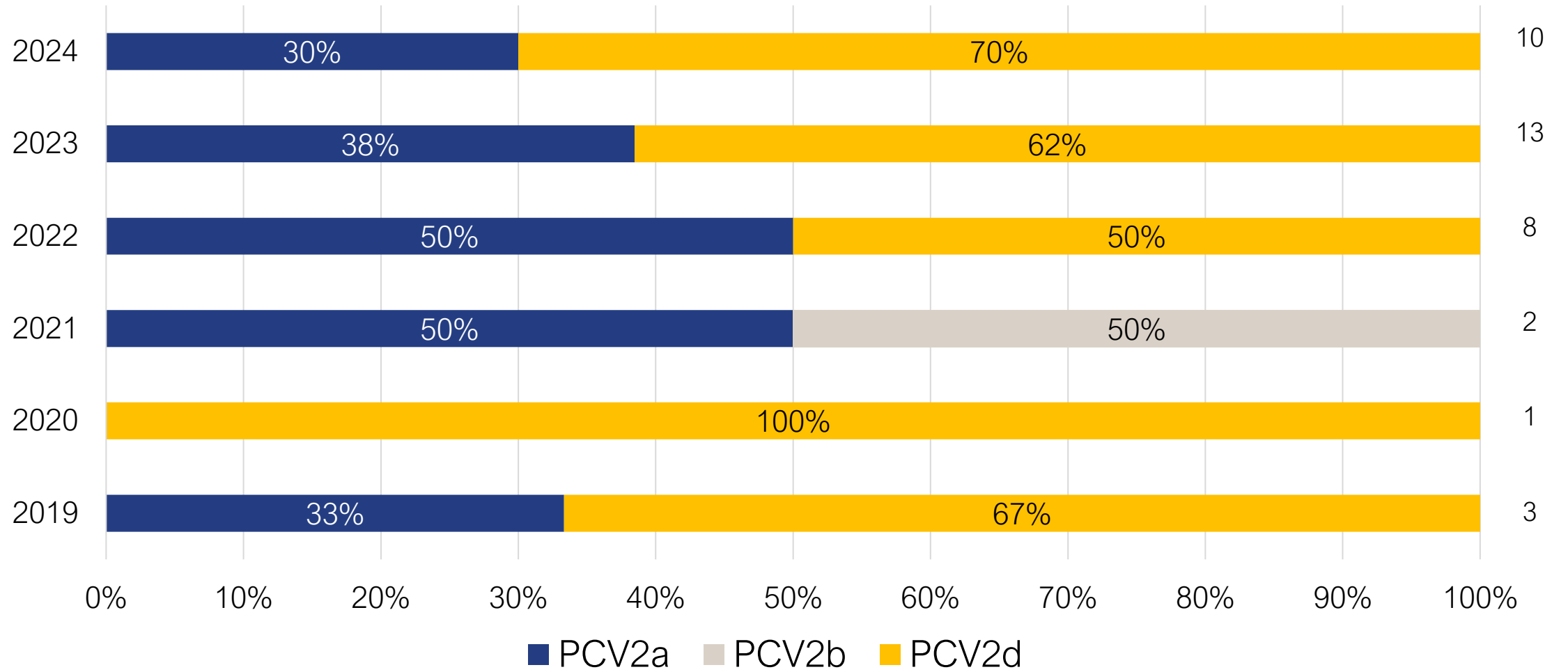




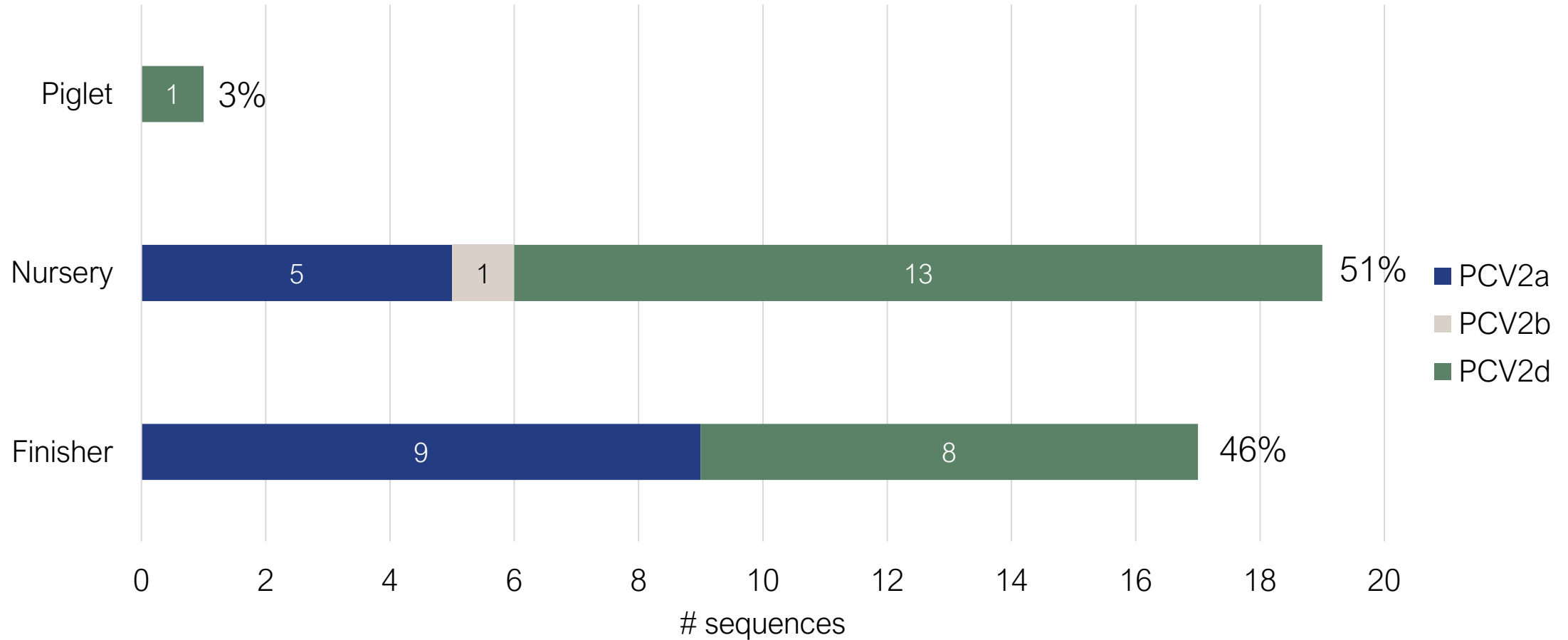
- PCV2d prevalence has increased to almost displaced PCV2 b and a
- Good cross protection between types a and b in many current vaccines for type d
 - US had the first PCV2 d vaccine licensed – now licensed in Canada
 - Other vaccine companies are working on their own PCV2 d vaccines

**PCV2
changing
and
evolving?**

PCV2 sequences, by year

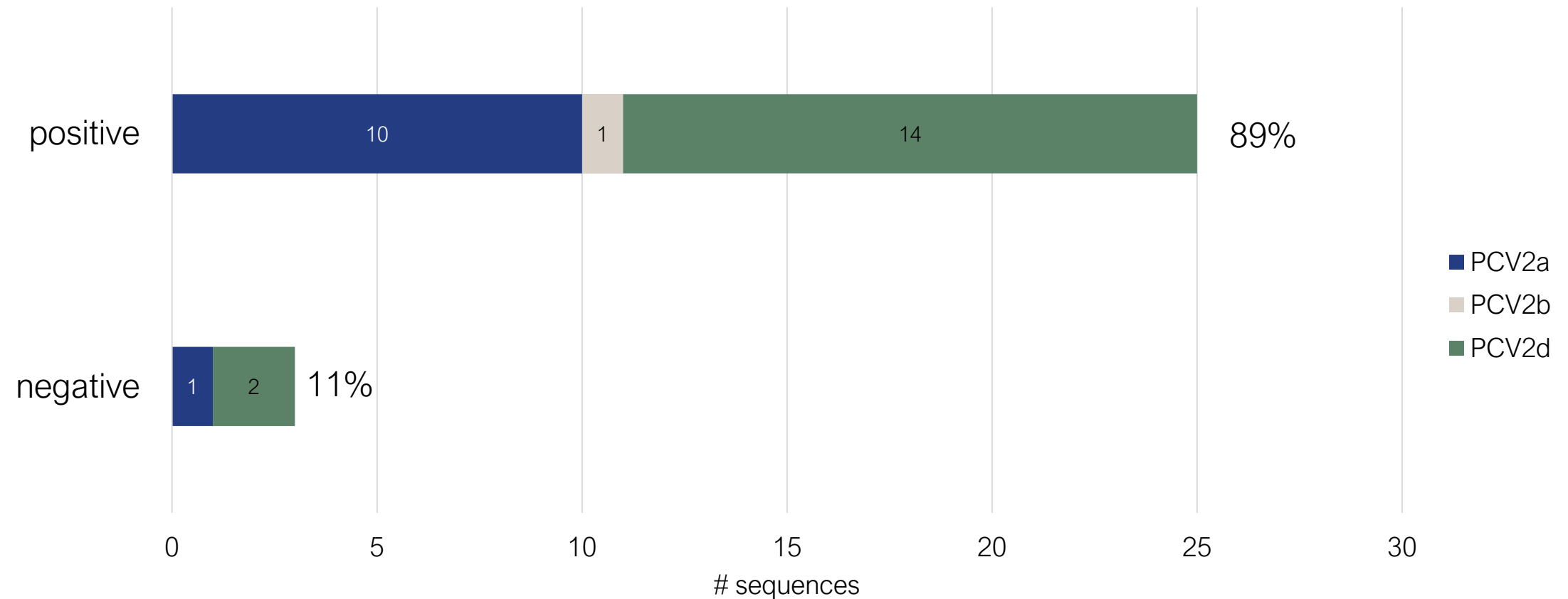


PCV2 Strain Surveillance – SWV Database



PCV2 Strain Surveillance – SWV Database

PRRS status at the time of PCV2 sequence



Vaccine Developments

- Current Circovirus PCV2 vaccines are PCV2a or a/b-based and can provide some heterologous cross-protection against PCV2d
- There are new PCV2 vaccines approved in Canada that are Type d specific to address the shift in prevalence
- Field information is early but has shown to have a positive effect on downstream flow

Take home messages

There has been an ↑ in identification and submission of PCV2

Seeing more in sequencing for PCV2 – specifically PCV2d

Number of submissions with concurrent PRRS positivity is ↑

PCV2 is being identified as part of other diseases breaks

Clinical picture is starting younger - more issues in early nursery/finishing phases

Vaccine options are available that may be beneficial to your herd particularly if you're dealing with PCV2d

Proper diagnostics is critical!!!



Thank You

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South West Team:
Courtney Werth
Gillian Greaves
Andreanna Surmak



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