



International Thoroughbred Breeders' Federation

Webinar

supported by our partners -





Thoroughbred breeding in today's world – **challenges, threats and opportunities**

Introductions

Kirsten Rausing (ITBF Chairman)

Dr Des Leadon (Veterinary Committee Chairman)

Speakers

Sir Johnny Weatherby & Simon Cooper

John Fulton

Dr John Grewar BVSc, MSc, PhD

Dr Guillaume Fortier DVM, Dip Pasteur, PhD

Dr Barry Ball DVM, PhD





ITBF

Welcome to
all of our 410 attendees
from 34 countries, on 6 continents

Argentina. Australia. Austria. Brazil. Canada. Chile. Czechia.
France. Germany. Great Britain. Hong Kong SAR. Hungary. India.
Ireland. Italy. Jamaica. Japan. Lebanon. Mexico. New Zealand.
Norway. Oman. Poland. Qatar. Singapore. South Africa.
Spain. Sri Lanka. Sweden. Switzerland. Turkey.
United States of America. Uruguay. Venezuela



WEATHERBYS

Innovating since 1770



A LITTLE BIT OF HISTORY

1770

James Weatherby appointed Secretary to The Jockey Club,
Keeper of the Match Book and 'Stakeholder'

1791

James Weatherby publishes
The Introduction To The General Stud Book



WEATHERBYS

Innovating Since 1770

BRITISH RACING ADMINISTRATION

BHA ENQUIRIES WORKFLOW FIXTURES & RACES ADMINISTRATION INFORMATION

Mike Butts

Entries Tracking

You last refreshed the page at 11:49 on 15/01/2021

Search for race number...

Lingfield Park / Monday 18 January 2021 Jump / Turf / Afternoon
25931 / 1.15pm / Visit attheraces.com Standard Open National Hunt Flat Race (Class 5) (GBB Race)
2m / 4-6YO / £3,500 Open for entries

Stabling capacity 105 Maximum races: 7
Going: AW Standard to Slow (track will be worked deeper on Sunday after our flat meeting on Saturday)

14 14 0 22
SF / AP / FOL / Seq / Entries

Enter by 12.00

RACE CONDITIONS OTHER RACES AT THIS FIXTURE

RACE VIEW

Horse / Rider	Age / Sex	Rating	Trainer / Owner
Balco Coastal (FR)	5 G	-	Nicky Henderson Mr Mark Blandford
Clear On Top (IRE)	5 G	-	Tom George Nelson, Sovington, Taylor, Delarocha
Datsabrightgino (GER)	5 G	-	Jamie Snowden The GD Partnership
Denable Graham Carson (7)	5 G	-	Anthony Carson Mr Clive Dennett
Distant Universe Graham Carson (7)	6 F	-	Anthony Carson Mr Clive Dennett
Get Sky High (IRE)	6 F	-	Dan Skelton Mr & Mrs Gordon Pink
Hanafy (USA)	4 G	-	Kevin Bishop Barry Sillman and Gary Pascoe

5 5112/22 OSCARS LEADER (IRE) v Jennie Candlish
Oscar (IRE) - Leader Inn (IRE)

BRITISH HORSE RACING ADMINISTRATION Web Support Queries: +44 (0) 1933 304828 or websupport@racingadmin.co.uk

Mike Butts

Stabling capacity 88 Maximum races: 7
Going: Soft, Heavy (in places)

class 2) (GBB Race) 3m 125y / 4YO+ / £15,000

Age/Sex	Rating/Weight	Rider/Owner
7 G	141 11st 12lb	Gavin Sheel Robert Abre
5 G	131 11st 2lb	William Mar Mr Colin Da
5 G	127 10st 12lb	Ciaran Geth Mr David M
8 G	125 10st 10lb	Bridget And Simon & Lis
8 G	123 10st 8lb	Sean Quinlan John Mann

RACING COLOURS BUILDER

Jacket

Style: X

Main colour: Blue

Secondary colour: White

Sleeves

Cap

Enter Colour Code

Jacket: 12 16 17
Sleeves: 01 17 00
Cap: 01 17 00

CHECK AVAILABILITY

CURRENT / HISTORIC SETS

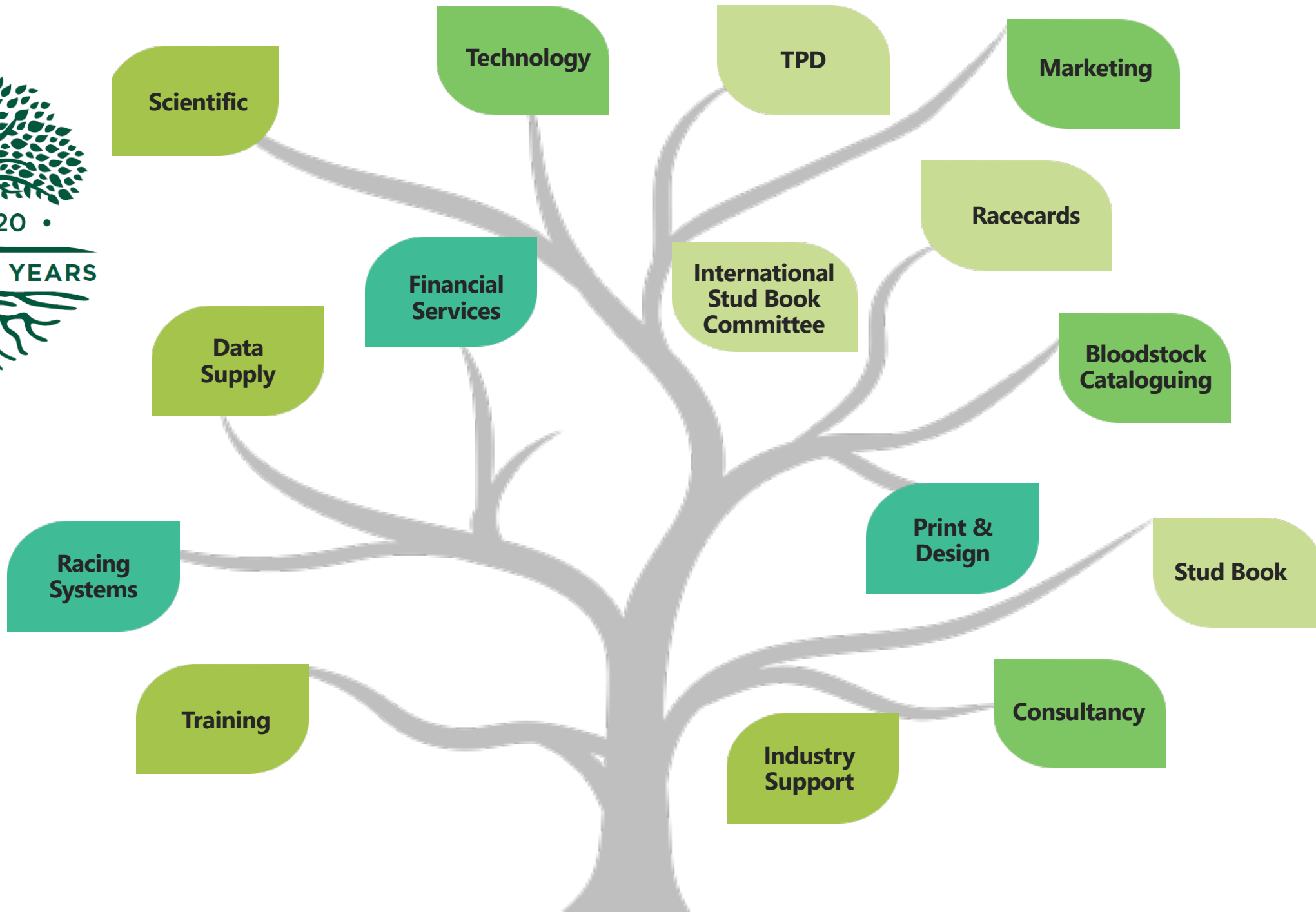
ROYAL BLUE, WHITE cross belts, sleeves and cap.

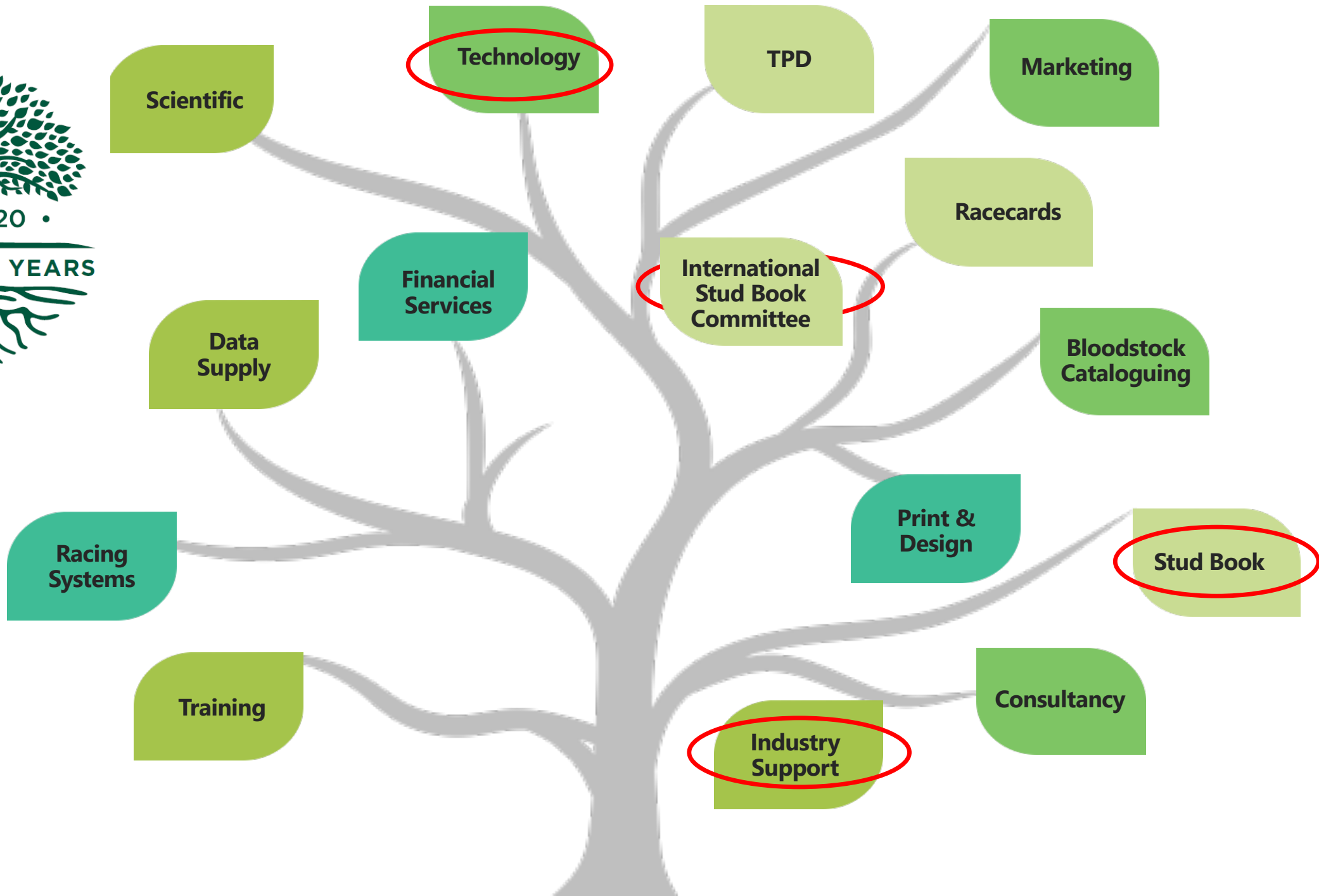
Combination not available
The combination chosen is not available. Please try another one or choose one of the suggestions below

- Prize Money
- Collect BHA Fees
- Notifications – e.g. Wind Operations
- Weights for all runners
- Jockey Bookings
- Going Reports/Abandonments
- Race divisions, eliminations, balloting out

- Withdrawals
- Programme Books
- Names and Colours

- Race Results
- Handicap Ratings
- Racing Calendar







International Stud Book Committee

- Integrity & ID of the TB Breed
- 69 Approved Stud Books
- ISBC Code
- 4 ISBC regional committees –
NA/OSAF/ASIA&ANZ/EUR
- Stud Book Audit – 14 reviewers worldwide



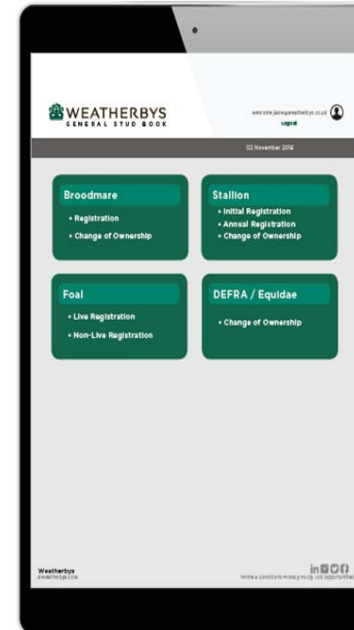
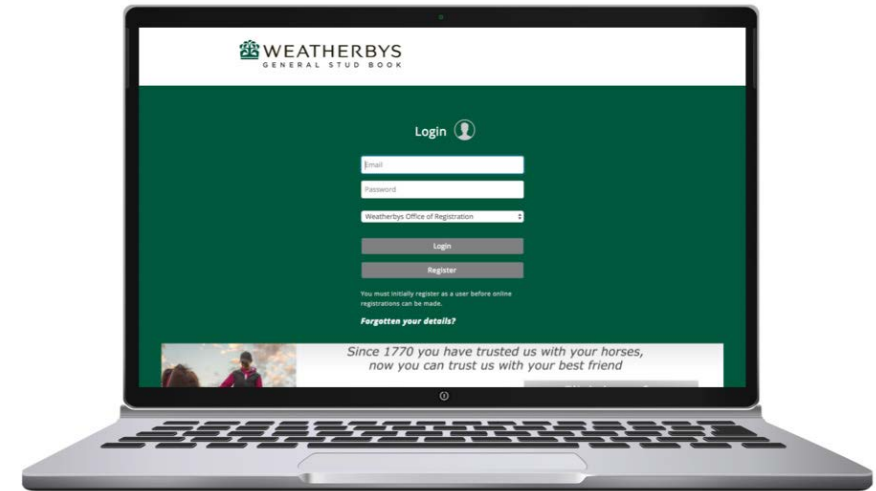
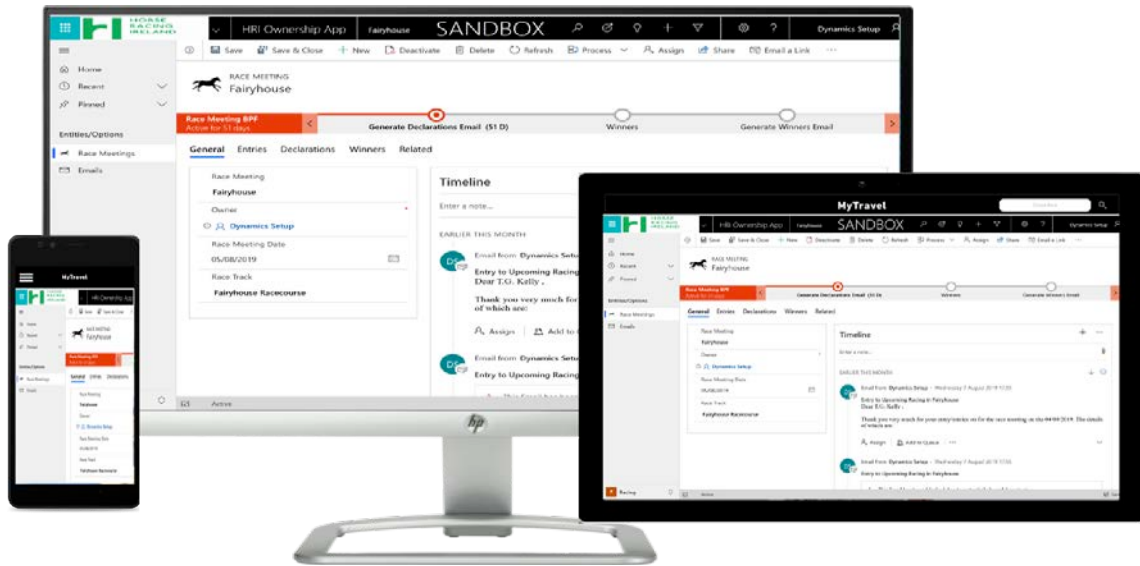


International Stud Book Committee

- MS transition to SNPs
- Gene-doping
- Embryo Transfer
- Sexed Semen
- Inbreeding



WEATHERBYS TECHNOLOGY



WEATHERBYS SCIENTIFIC

“To be a global leader in animal genomic solutions, helping our customers to



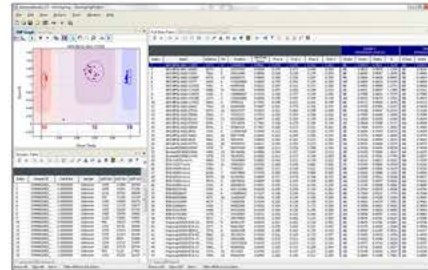
Automated DNA Extraction



High density Illumina
SNP array



Axiom™ Bovine Genotyping
Array, 384 format

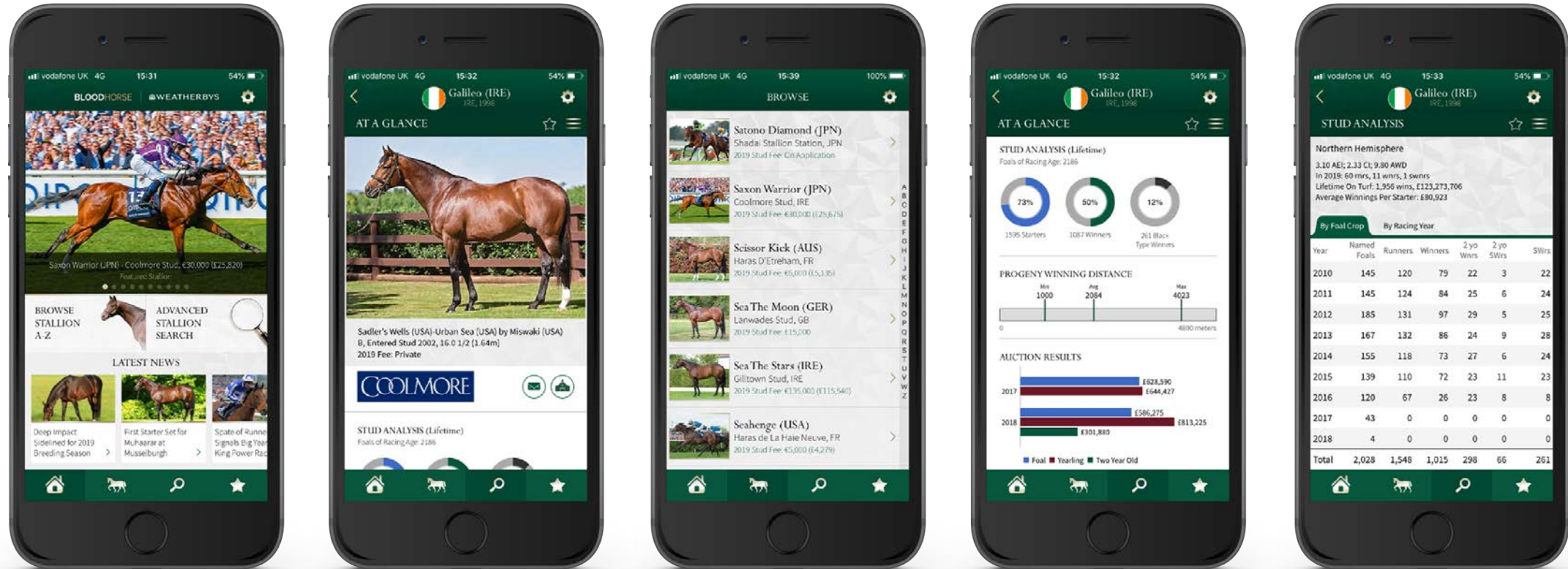


Bioinformatics

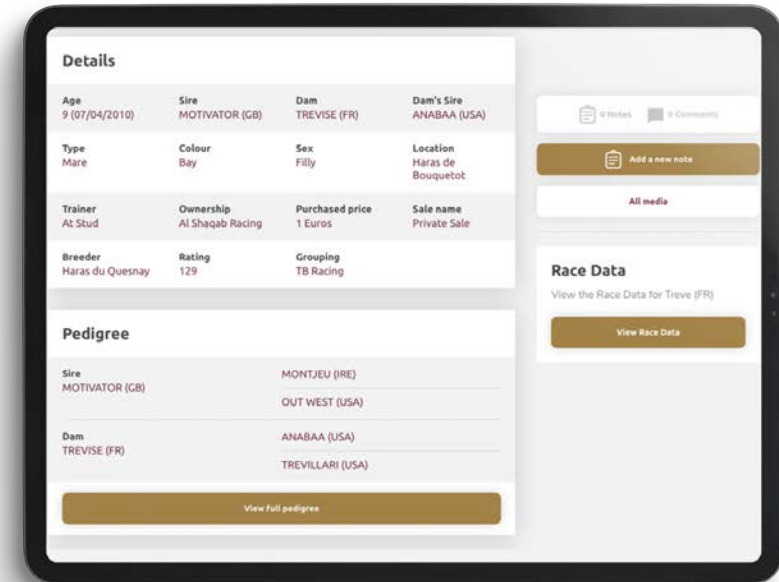
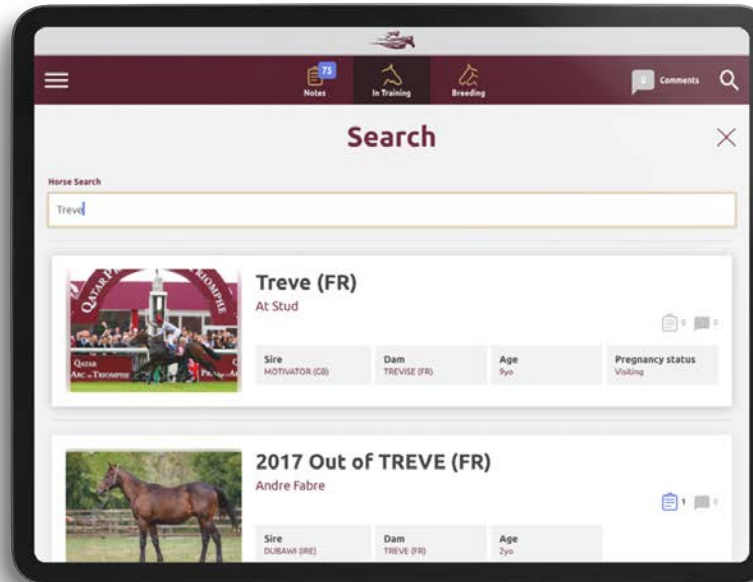
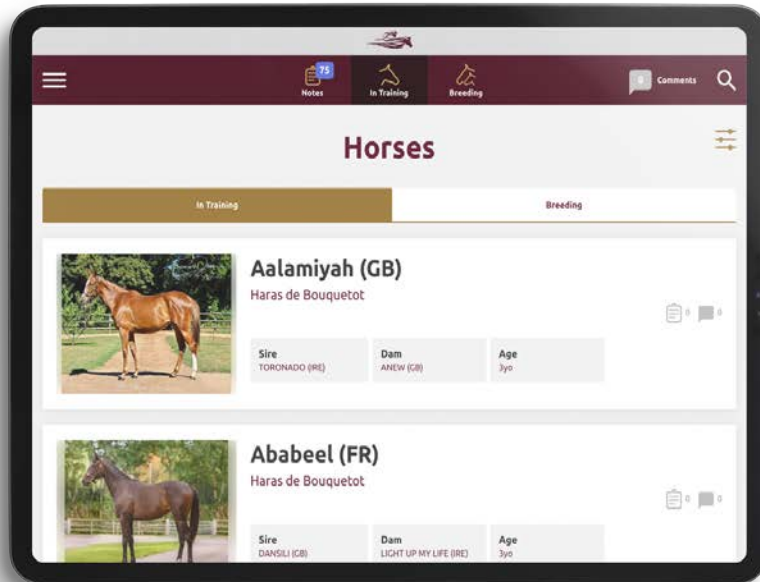


Delivered over **2.3 million** samples - **126 billion** data points - over the past 6 years.
Throughput of more than 25,000 samples/week.

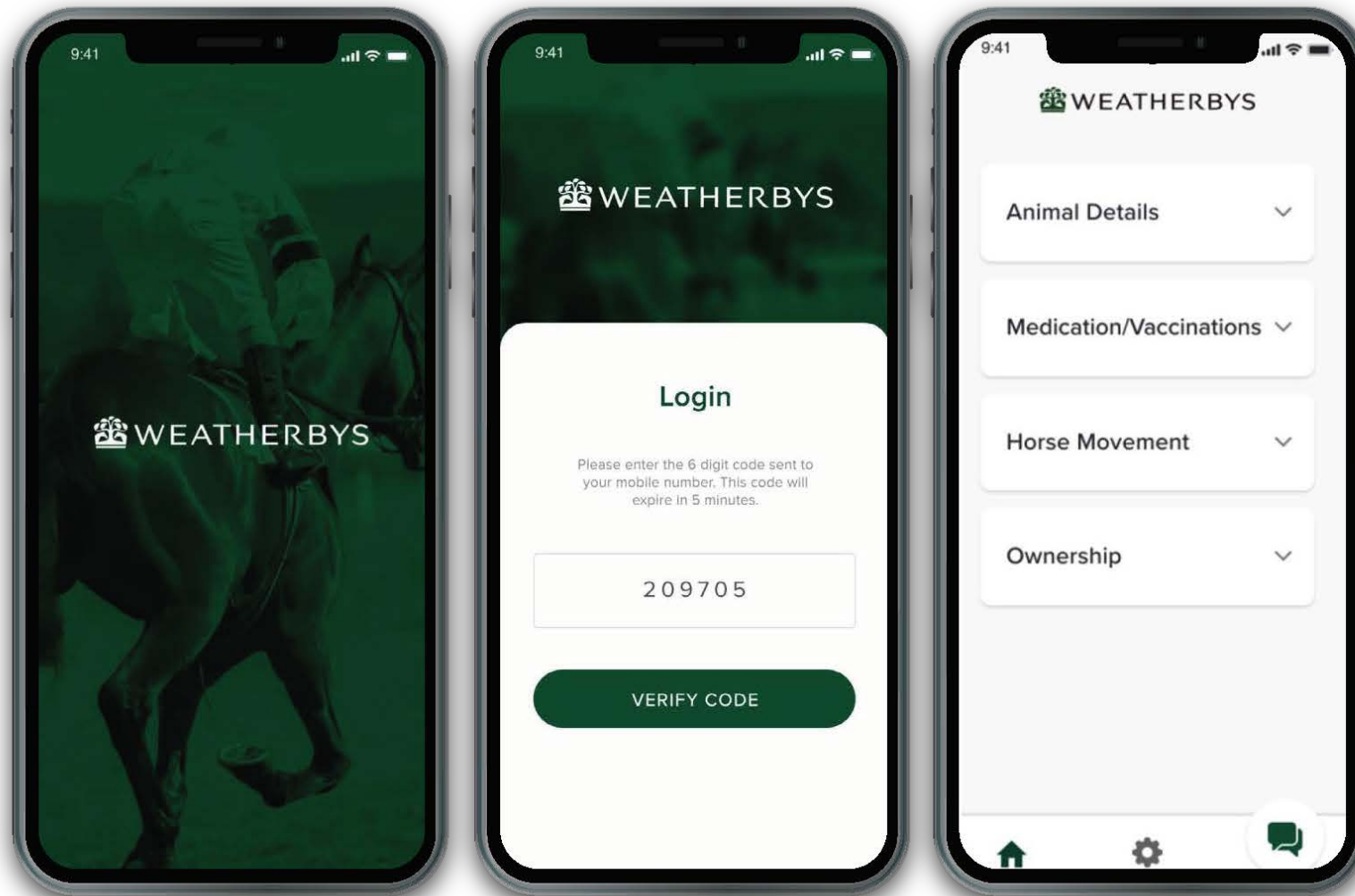
BLOODSTOCK



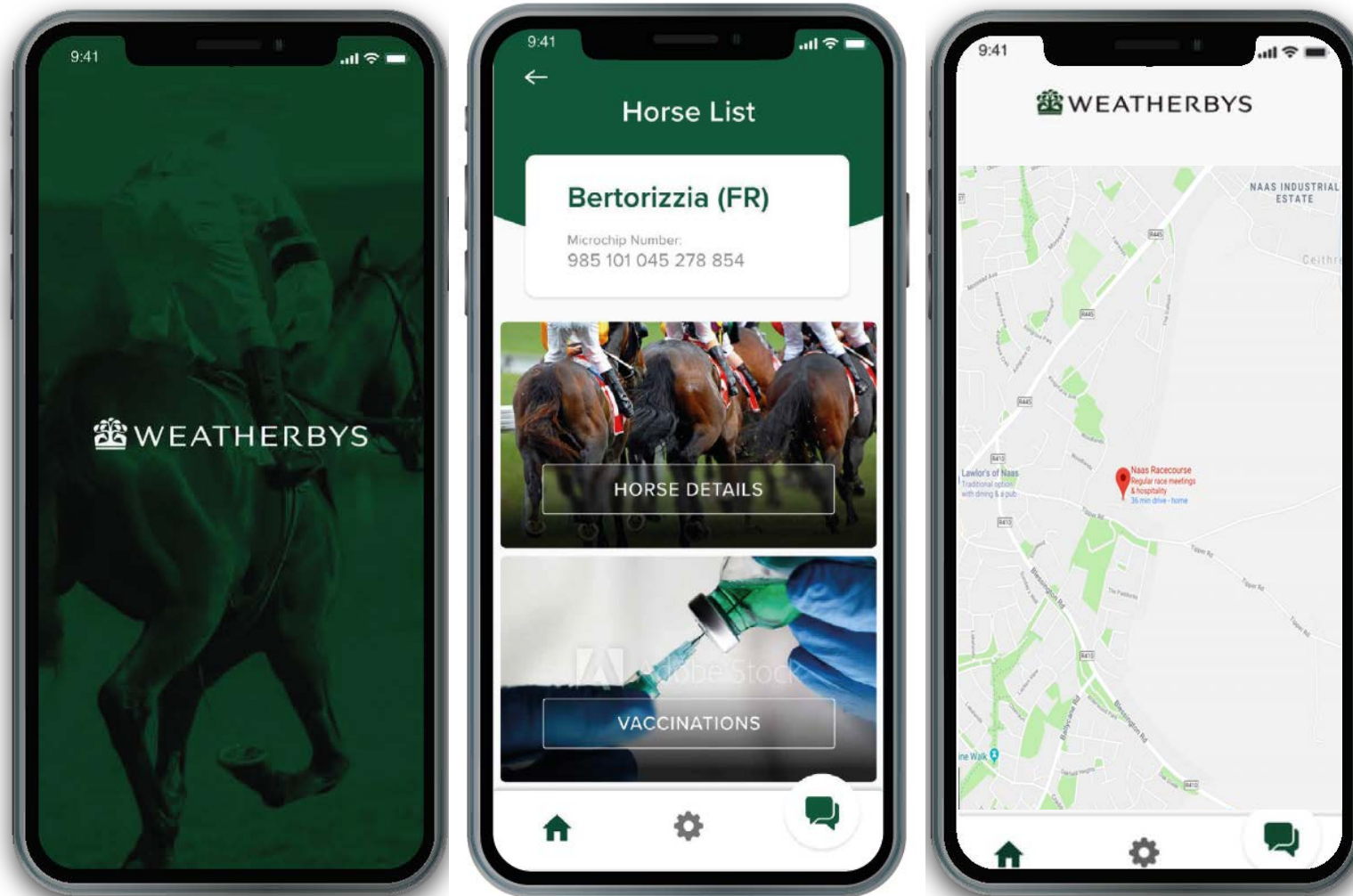
BLOODSTOCK



GENERAL STUD BOOK



GENERAL STUD BOOK



WEATHERBYS INDUSTRY SUPPORT



National Hunt Fillies Bonus Scheme

CLEVER OWNERS GET IT!



THE IRISH FIELD

- Weatherbys ITBA NH Fillies Bonus Scheme -
4,000+ fillies registered / €1.9 million paid out
- Race Sponsorship - £750K per annum
- TBA support
- Weatherbys Charitable Foundation



THANK YOU



WEATHERBYS



Economic Challenges and Opportunities in South America

John Fulton
Global Bloodstock
Consultant

“La Pasion gana sobre la razon”
The passion wins over reason



Club Hipico de Santiago, Chile



Andres Vial & John Fulton, winning joint-owners
of the Gr.1 Alberto Vial Infante

Andre Vial – President of the Chilean Studbook &
Director of Club Hipico Racetrack

Working in the 5 countries of the Southern Cone Argentina, Chile, Brazil, Uruguay & Peru



Gavea Racecourse in Rio de Janeiro, Brazil



Monterrico Race Track Lima, Peru



Maroñas Race Track Montevideo, Uruguay

Current South American foal production is at 12,500
Down from a high of 16,000

Haras Firmamento, Argentina





El Paraiso, Argentina



Don Alberto, Chile



Haras Chenaut, Argentina

AUCTION PRICES REMAIN OPTIMISTICALLY HIGH

Stud farms are adapting to new systems -

- Selling solely online with scheduled viewings for buyers, trainers and agents at the stud
- OR
- Sending their bloodstock to the auction for live online bidding

A foundation influenced by European stamina and durability, with the introduction of speed from the USA.

Producing tough, sound, high-class horses

Haras Paso Nevado, Chile



The opportunity to breed and produce top-quality racehorses at low cost



New opportunities for stallion owners



VERRAZANO stood in Chile



ORPEN stood Argentina



CONSTITUTION stood in Chile



Good land, low cost, top professionals and a toughness in the gene pool – producing top quality racehorses

**THE SOUTH AMERICAN OPPORTUNITY
IS THERE FOR THE TAKING**



Thoroughbred Breeding in Today's World
Challenges, Threats & Opportunities
January 2021

African horse sickness in South-East Asia



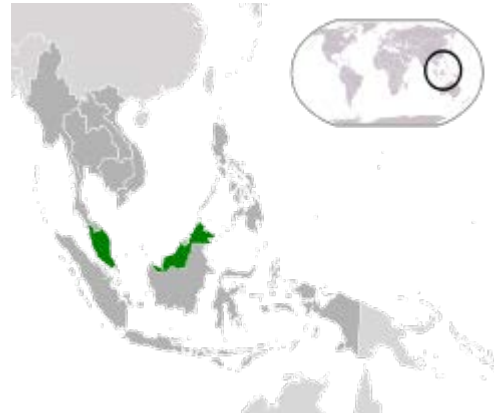
Dr John Grewar (BVSc, MSc, PhD)
Specialist Veterinary Epidemiologist
Research and Innovation Manager
john@saehp.com

Locations

Thailand



Malaysia



Overview - Thailand

- Thailand reported a case of AHS to the OIE on 27 March 2020 linked back to initial occurrence of 24 Feb 2020
- Outbreak spread through 17 of 76 Provinces in the country
- 610 cases occurred with 568 deaths
 - 22.3% morbidity (7.6% if PAR = vacc); 20.7% (4%) mortality
 - 93.1% case fatality rate
 - Horses primary species affected
- AHS type 1 outbreak
- Source of infection linked back to Southern Africa and to recent imports of Zebra

Overview - Thailand

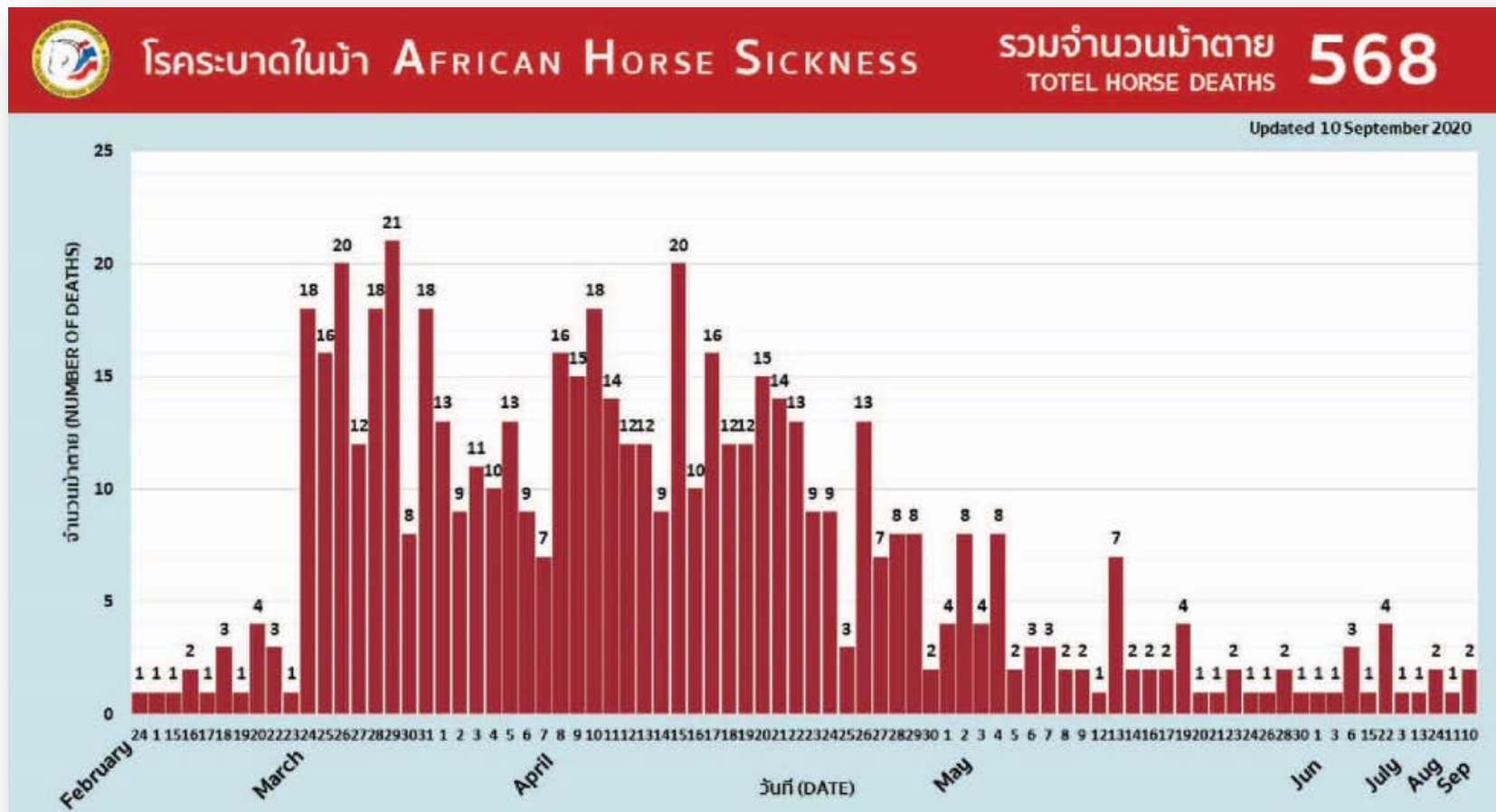
- Control through
 - Movement standstill with hotspot zoning
 - Vector protection
 - Vaccination (LAV OBP bottle 1)
 - 10 316 equids vaccinated in 27 Provinces – these were affected and immediately neighbouring to affected areas
 - Census and surveillance



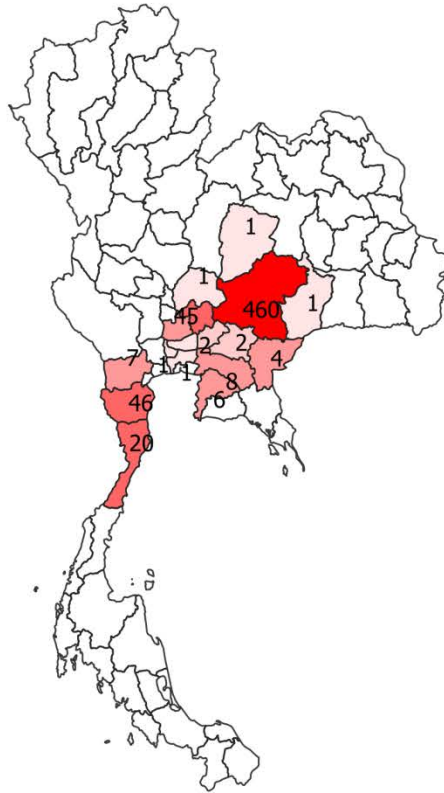
Overview - Thailand



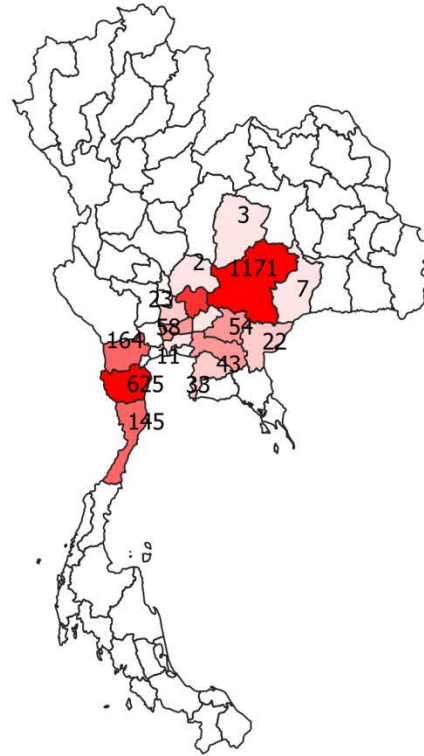
Thailand Outbreak



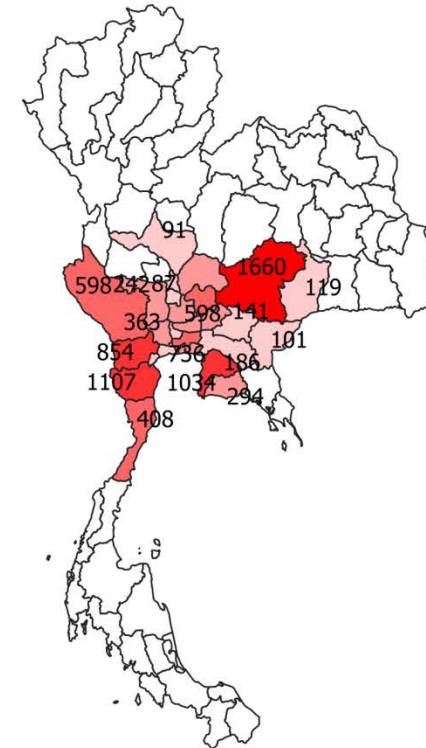
Thailand Outbreak



Cases



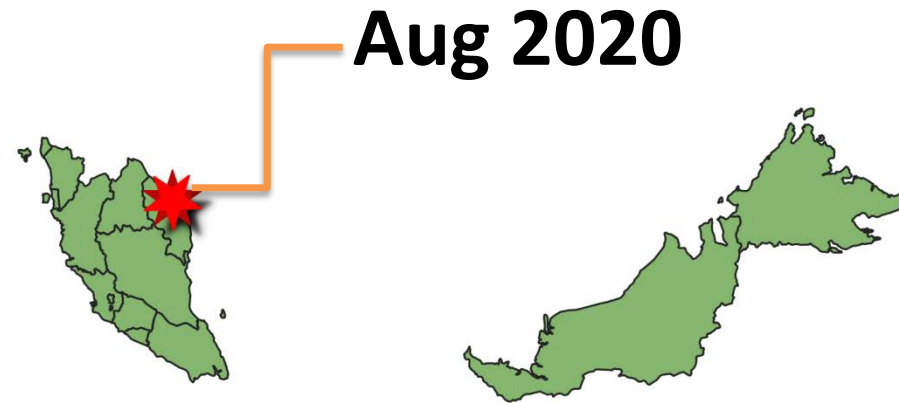
Susceptible



Vaccinated

Overview - Malaysia

- 1 outbreak location (5 cases; no deaths) reported from Malaysia in early August 2020



Cases

Information needed

- OIE AHS webinar series as insight into information required to respond to outbreak
 - Clinical signs, epidemiology, transmission and prevention
 - Diagnostic tests and possible support from OIE Reference Laboratories
 - Insect vectors, their surveillance and control
 - Eradication strategies
 - Outbreak investigation
 - Impact of AHS on the OIE official status and on international movement

Conclusions

- Control and Return to freedom
 - Public private partnerships
- Import processes reviewed
- Census data to assist control and investigation
- Movement and Vector control played large role in mitigating impact



WEST NILE VIRUS IN EUROPE

Guillaume Fortier

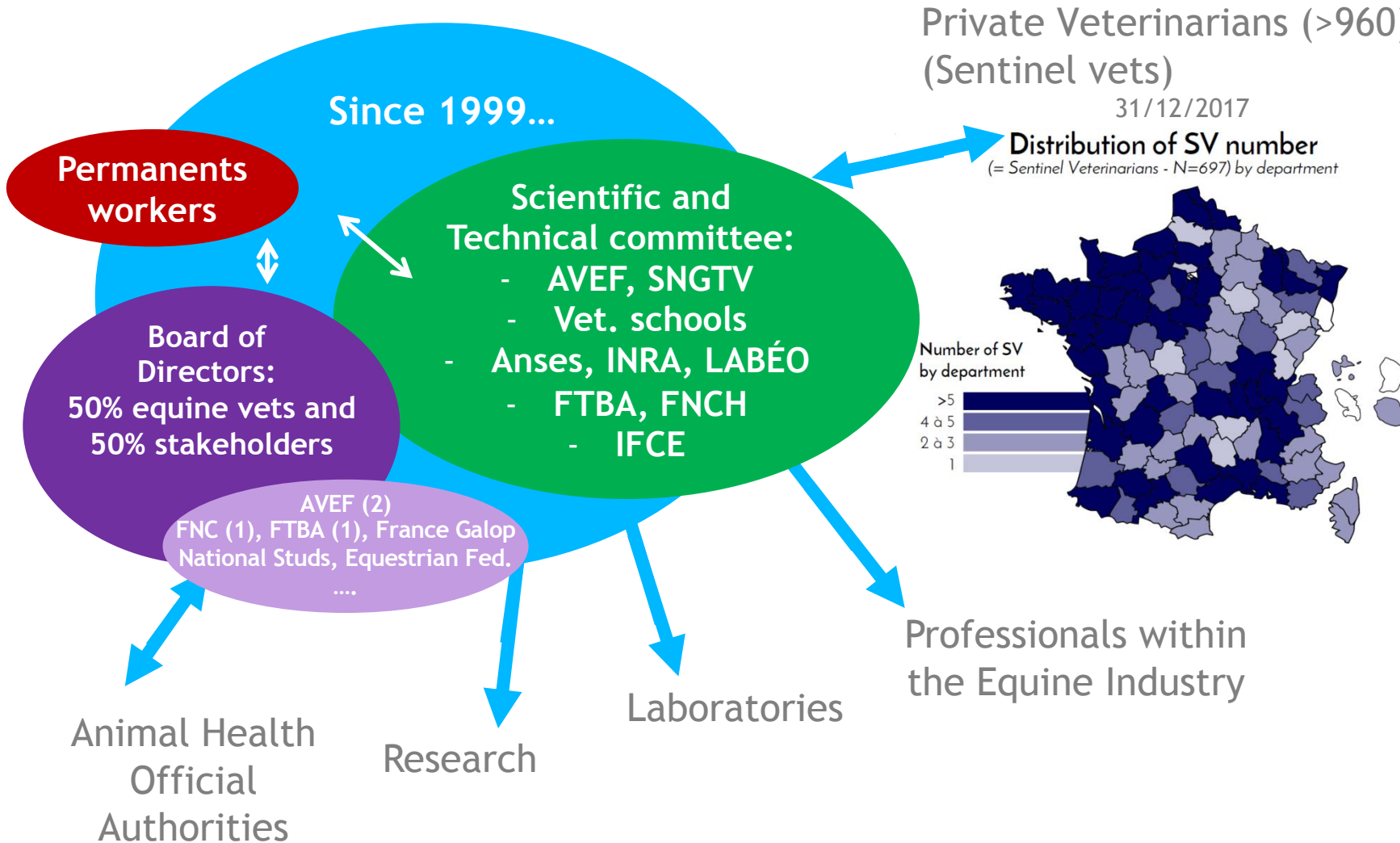
French TBA, Veterinary advisor

DVM, Dip.Pasteur Inst., PhD, HDR Normandy Univ.



ORGANIZATION

RESPE = Network for Epidemio-Surveillance of Equine Diseases,
Created in 1999 in response to a need for more information on equine diseases



DISEASE WATCH



Acute Respiratory Syndromes



EI
EHV 1-4
Rhinovirus A-B
Adenovirus 1
Strangles



Neurological Syndrome

EHV1
West Nile



Piro-Like Syndrome



EIA
West Nile
Babesia caballi
Theileria equi
Anaplasma



Abortions

EHV1
EAV
Leptospirosis



Foal illnesses

Rotavirus
Coronavirus
Salmonella
Escherichia coli



« Paturage » diseases

Atypical Myopathy
Equine Grass
Sickness



Genetic Disorders



Reproduction



EHV-3
IEA
CEM
EVA



Sanitary prevention

Other diseases
Crisis Unit



West Nile Virus

Family : *Flaviviridae*

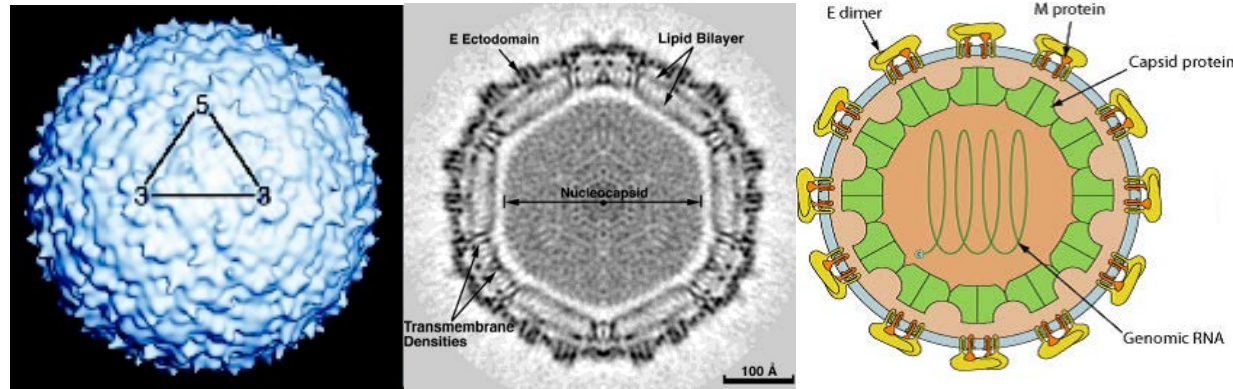
Genus : flavivirus >70 virus

Structure

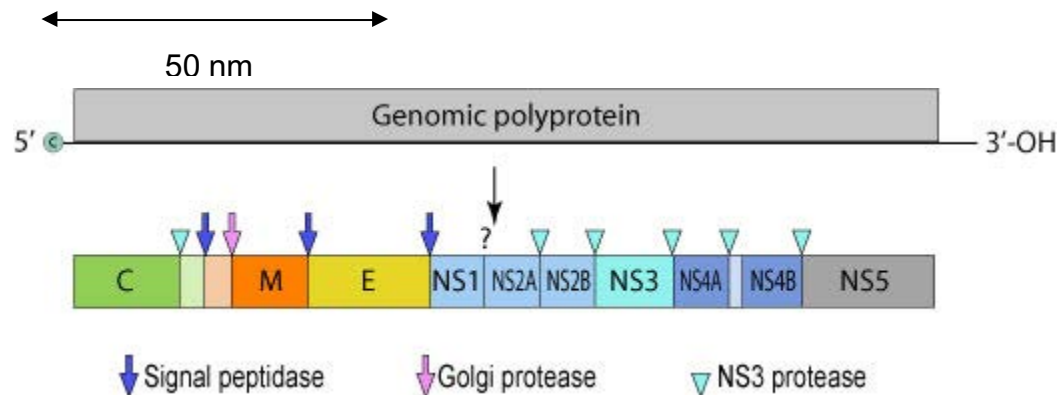


Yellow fever

Japanese encephalitis



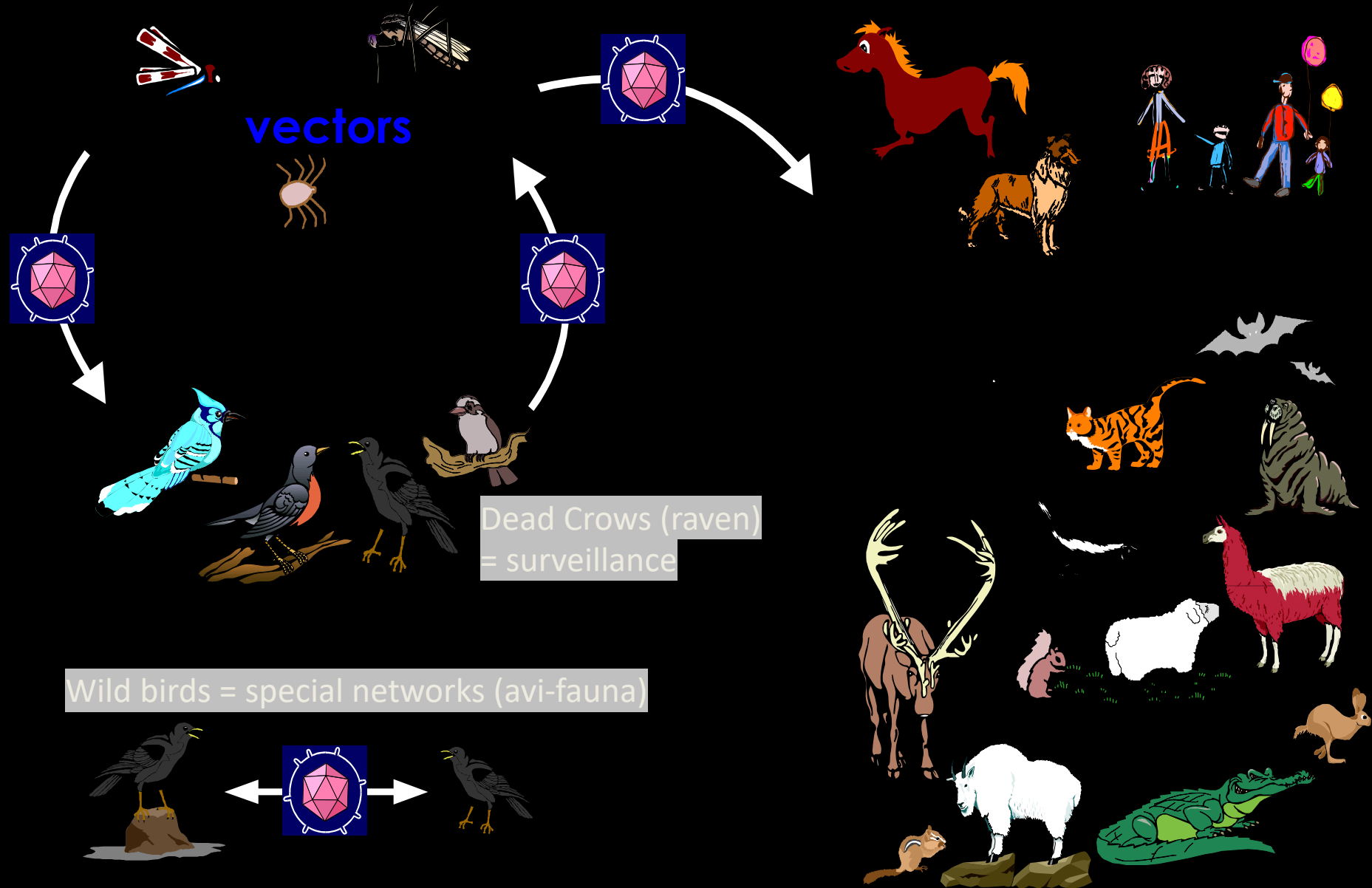
Structural protein : « E »
Highly immunogenic

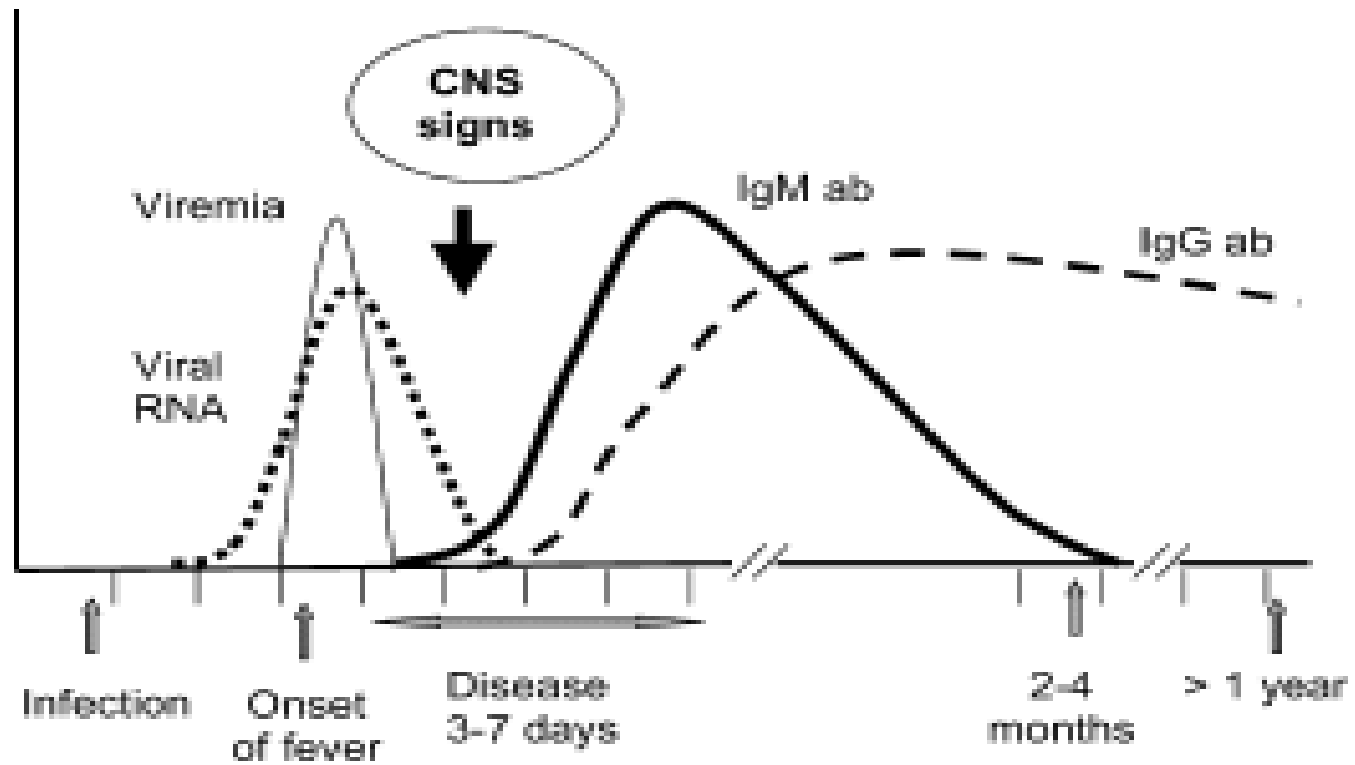


ssRNA+ 11kb

Kramer et al., 2007; <http://viralzone.expasy.org>

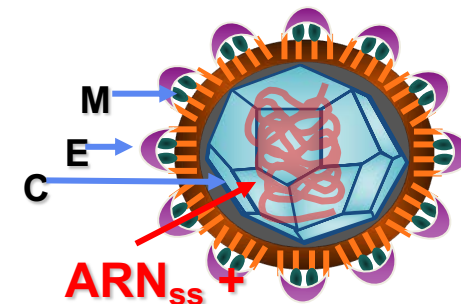
Transmission cycle





☐ **Serology** : Gold Standard - ELISA (IgM, IgG)

☐ **Virology** : Real Time PCR



Vaccines available in France for horses





Dr. Christel MARCILLAUD-PITEL
Mr. Pierre-Thomas BELVER

2 ways of reporting for sentinel vets



Neurological Syndrome

EHV1
West Nile



Piro-Like Syndrome



EIA
West Nile
Babesia caballi
Theileria equi
Anaplasma

Since 2018

WN disease is under surveillance with a grade 4 (on 5) in France (level 5 is reserved for sanitary crisis situation; i.e EHV1 neurologic outbreak en 2018)

High Vigilance through the Neurological Sub-network of the RESPE

Hard Commitment of practitioners (sentinel vets)

Help of state insitution (Ministry of Agriculture) and Anses Agency (European reference laboratory for equine diseases)

Total number of reports, all syndromes, in 2020: 875

Total number of Neurological reports: 67 (7.6%)

Total number of Pirolike syndrome [isolated fever] reports – 338 (38,6%)

i.E ; Acute respiratory syndrome sub Network – 195 (22,3 %)

West Nile in France

Rhône river delta

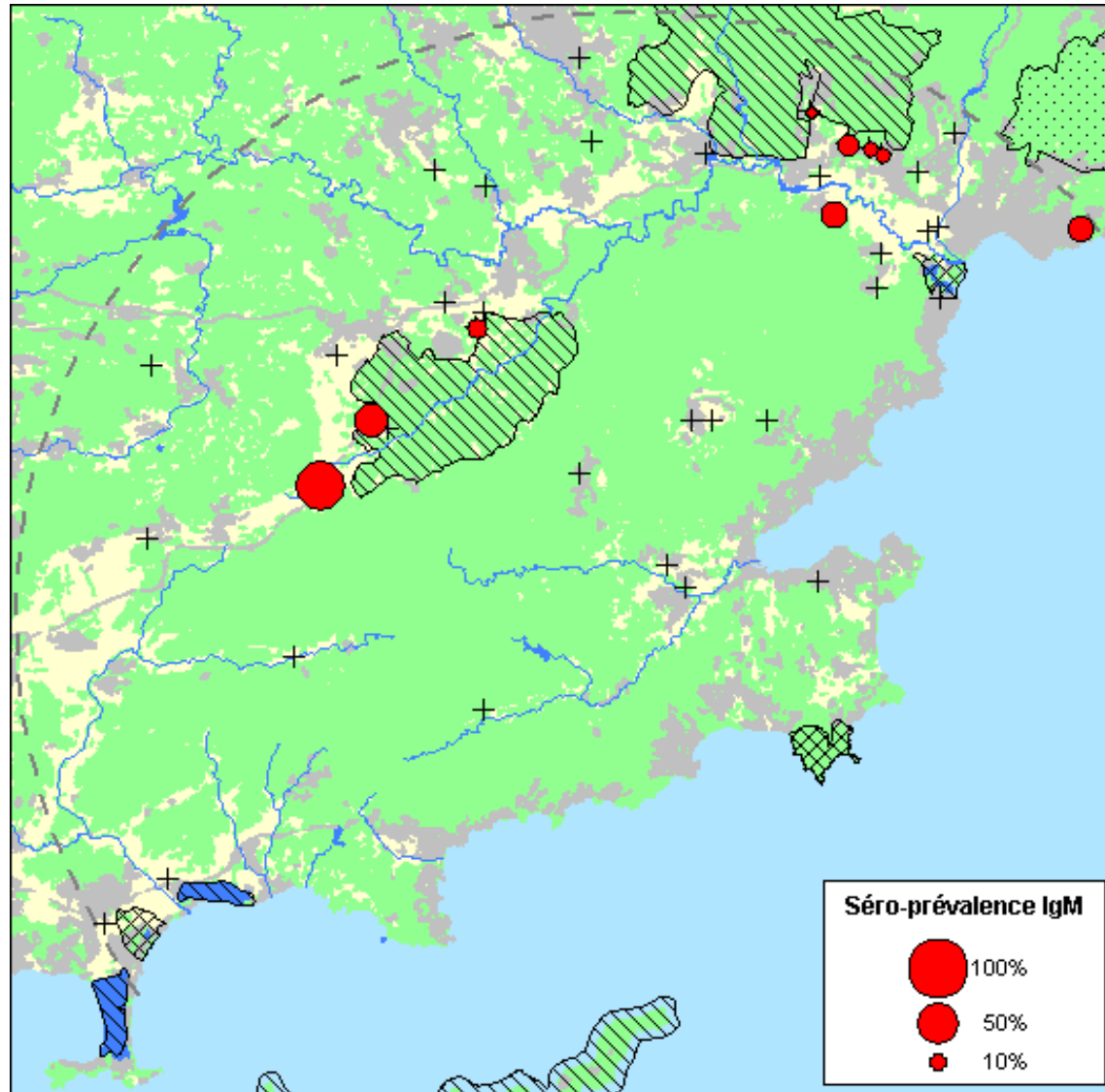
Comon biotope of mosquitoes, wild birds,
horses

Huge « marshes » areas

« historical areas » for WND cases in France



WN in France in 2003: Localisation vs seroprevalence IgM

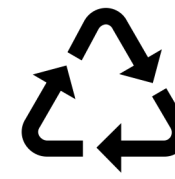


Dry Zones +++

Wet Zones



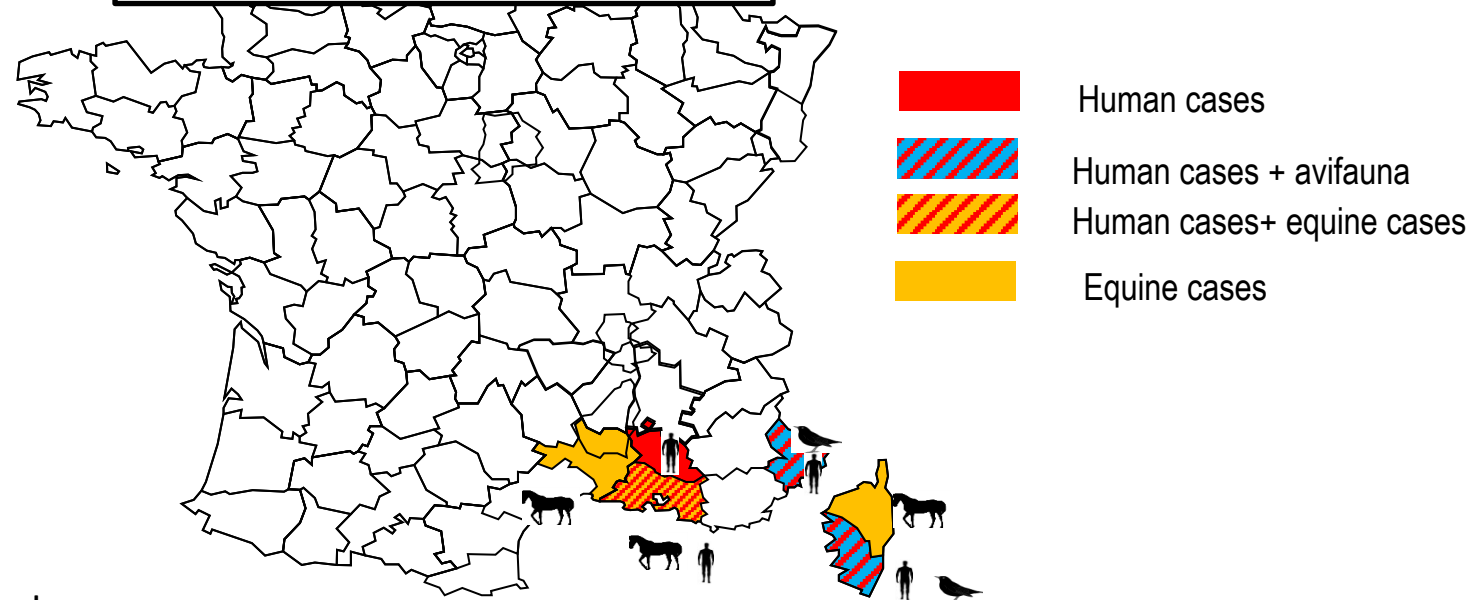
Human as « witness » for horse surveillance...



WN Human cases in France in 2018

Bilan au 28/11/2018)

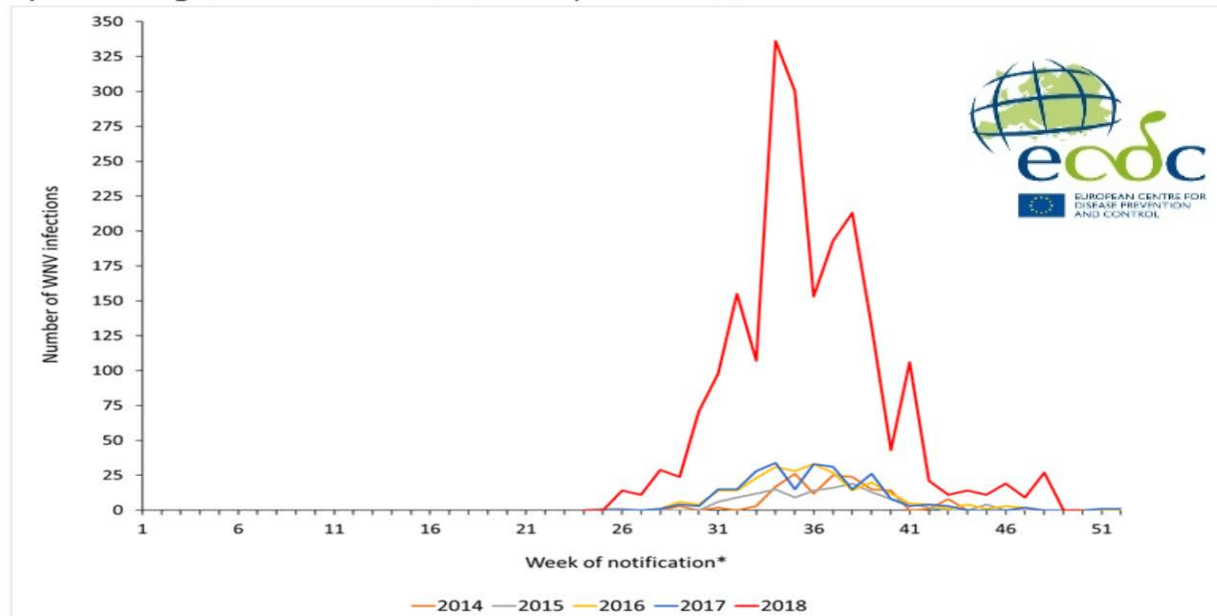
- ✓ 5 départements (07/07-12/11)
- ✓ 27 **autochthonous human cases** (24 cases in region PACA with 21 cases in Alpes-Maritimes) ; 7 **neuroinvasive forms**



Cécile Beck

Increase of WNV circulation in Europe : **human cases**

Number of WNV infections in EU/EEA and EU enlargement countries by epidemiological week of notification*, 2014-2018.



* Week of notification to national authorities or if missing, week of notification to ECDC.

In 2018 :

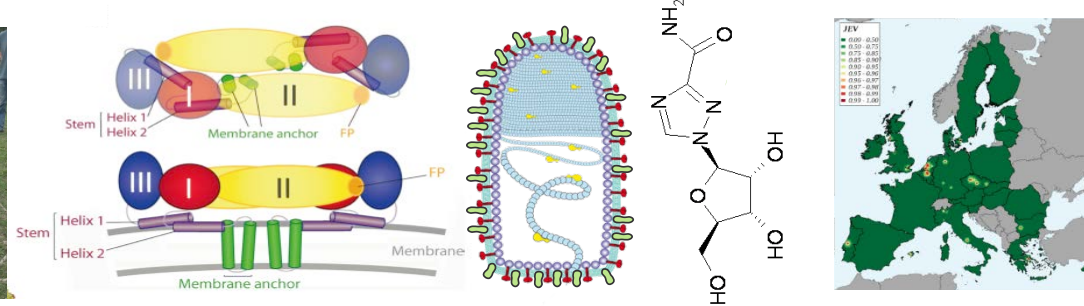
2,083 human cases

- 1 503 cases in EU: Italy (576), Grèce (311), Romania (277), Hungary (215)...
- 580 human cases in border countries ➔
- 7,8 times more cases in 2018 compared to 2017

181 deaths

285 equine cases

In EU, more cases in 2018 than in the 7 years before



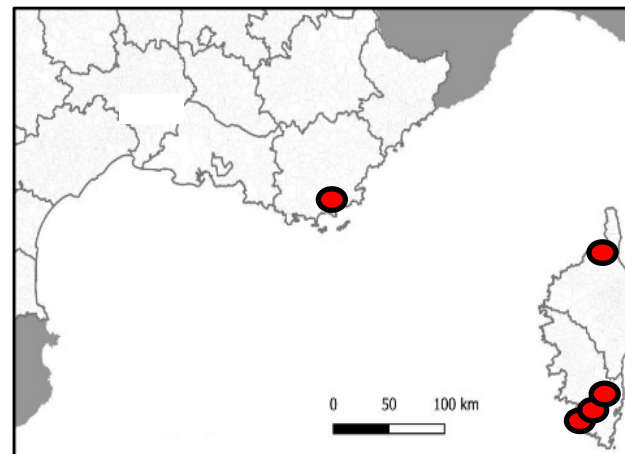
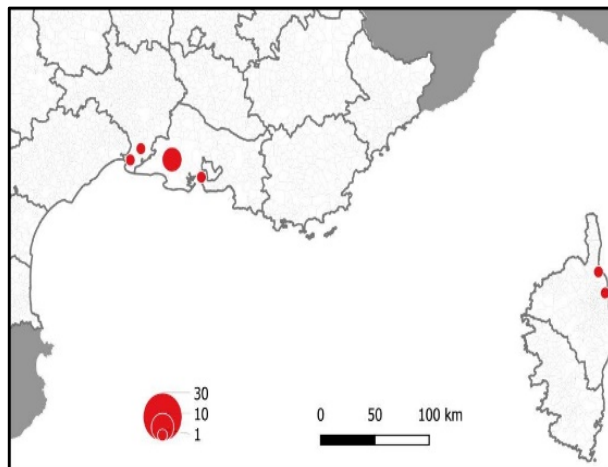
Assessment of equine, avian and human case reports for West Nile Disease in France for 2019-2020

LNR/LR-UE West Nile et encéphalites équine exotiques
cecile.beck@anses.fr

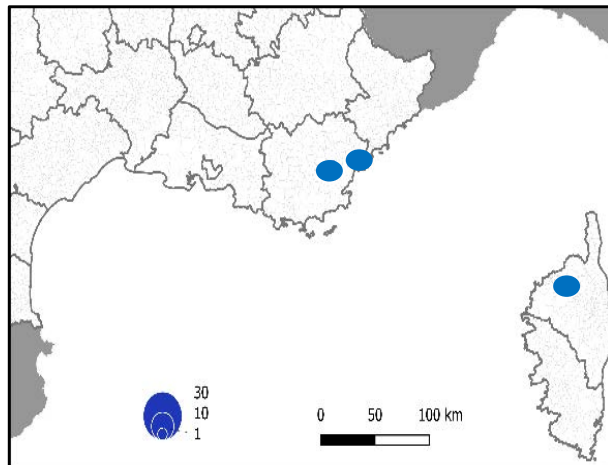
2019

2020

Equine
cases



Human
cases

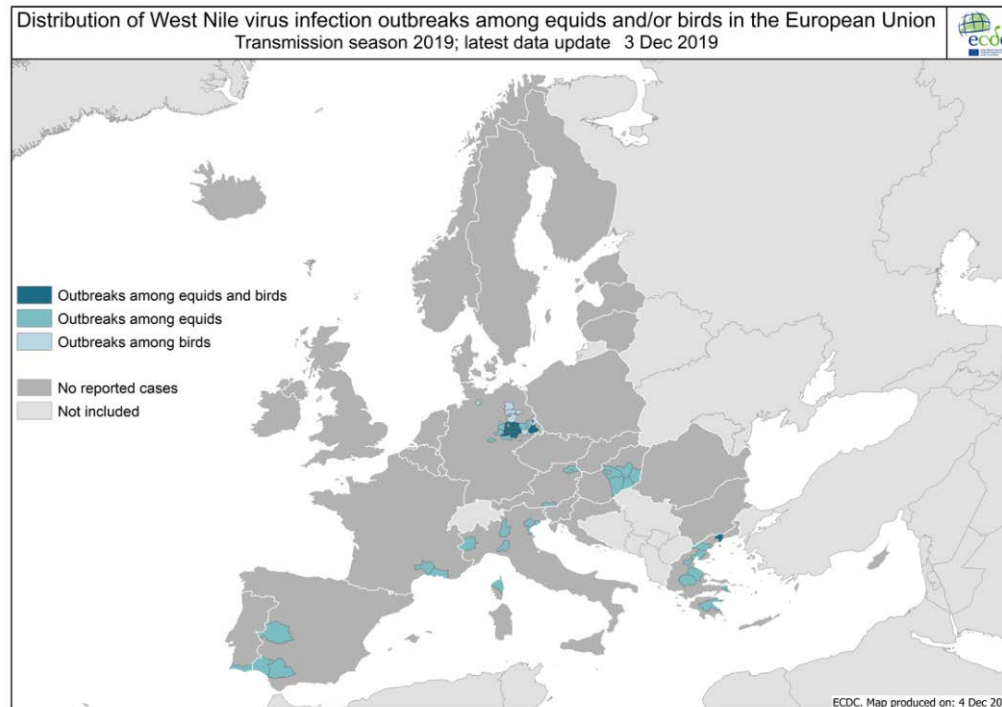


- 13 (11 en Camargue region and 2 in Haute-Corse)
- 2 human cases in Var region

- 5 equine cases : 3 in South Corse region (august to october), 1 in North Corse (september), 1 in Var region (september)
- First detection of equine WNV première fois in Corse in 2018 and once again in 2019-2020
- New detection of WNV in Var in 2019 and 2020 (last cases in year 2003)

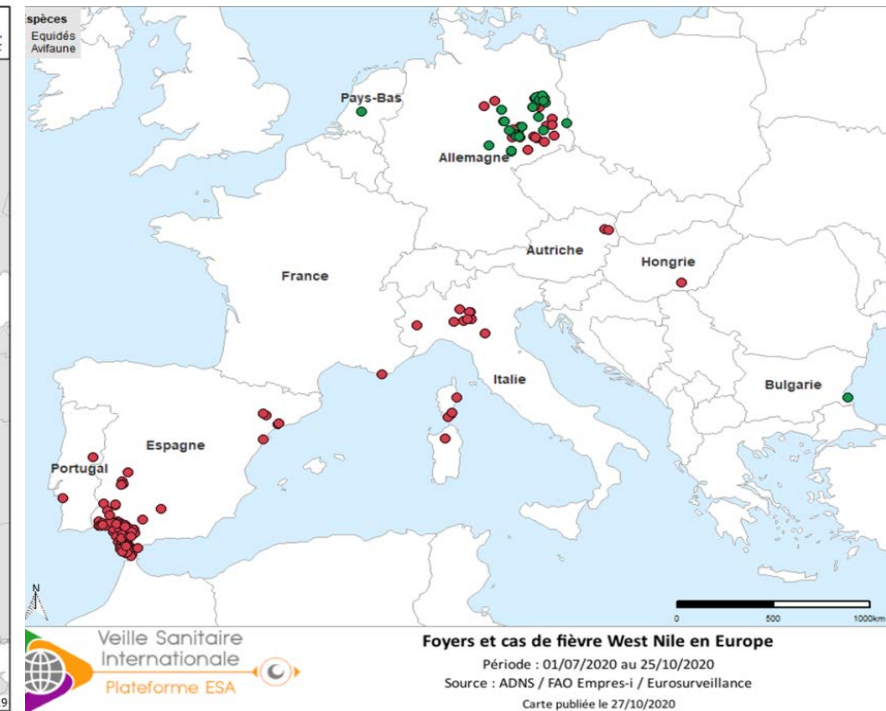
AVIAN AND EQUINE CASES DISTRIBUTION OF WNV IN EUROPE [2019-2020]

2019

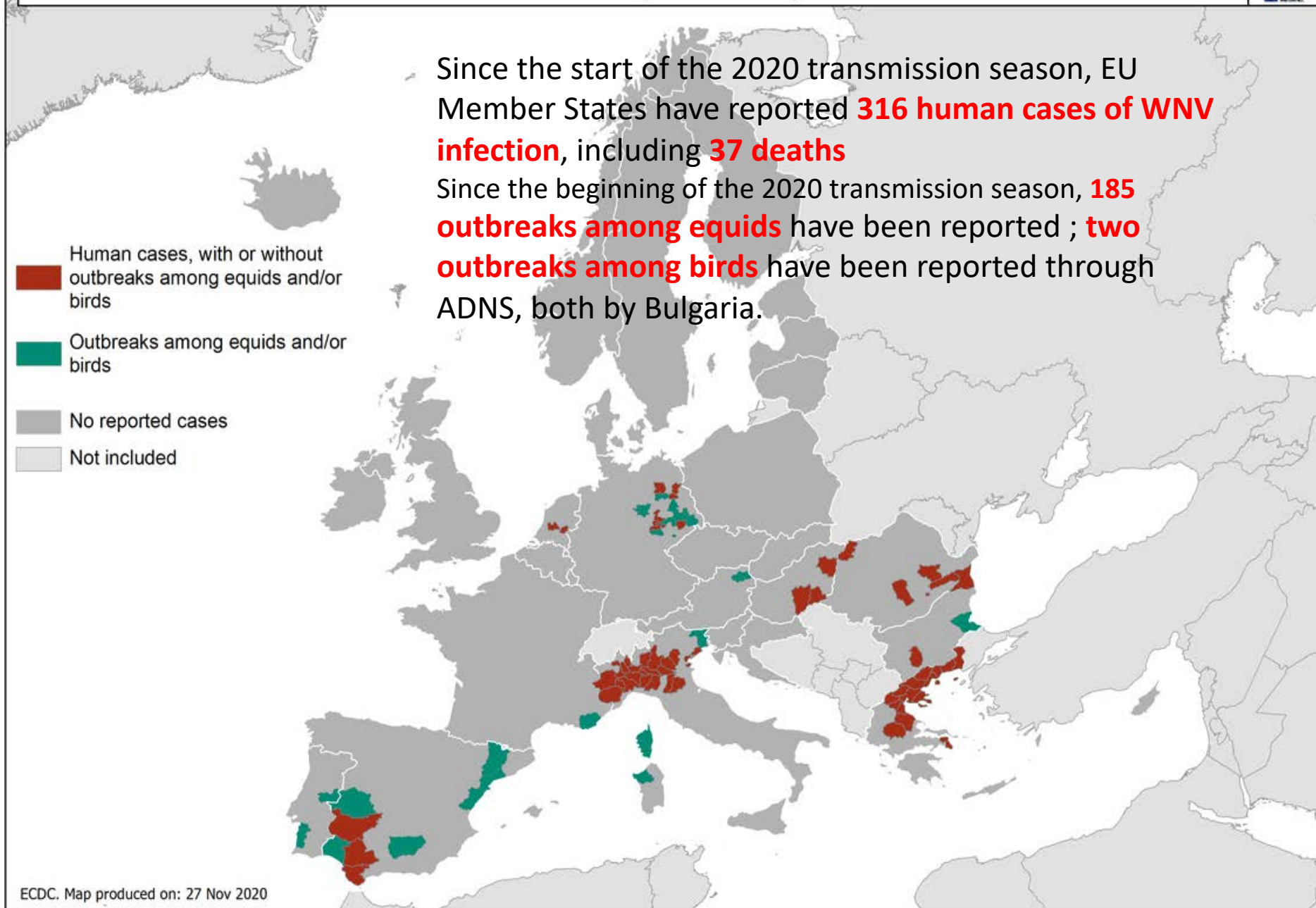


- **93** outbreaks or cases including 31 equine cases **in Germany**
- 10 European countries have already declared human cases of FWN (**463**) : Greece (223), Romania (66), Italy (53), Hungary (16), Cyprus (16), Bulgaria (4), Austria (4), **Germany (4)**, France (2) et Slovaquia (1)

2020



- Between July and October (2020), **218** outbreaks or cases including **183** equine ones mostly in **Spain**
- **1st** case in the avifauna in the Netherlands associated to human cases
- November 2020, height european countries have declared human cases of WND (**315**) : Greece (143), **Spain (77)**, Italy (66), Germany (13), Romania (6) **the Netherlands (6)**, Hungary (3) et Bulgaria (1)





M. Loïc MALIVET – Chairman
Mme Antonia DEVIN – Sanitary Commission
Guillaume FORTIER – veterinary advisor



Dr. Cécile BECK – Anses
European reference laboratory
for Equine diseases (LRUE)



An update on nocardioform placentitis

Barry A. Ball, D.V.M., Ph.D., Diplomate A.C.T.
Professor and Albert G. Clay Endowed Chair in Equine Reproduction
Department of Veterinary Science
Gluck Equine Research Center
University of Kentucky

Nocardioform placent



- First diagnosed in KY in 1986.
- Increased incidence during 1998, 1999, 2011, 2017 and 2020 foaling years.
- Also reported in Florida, South Africa, Italy, New Zealand and Australia.
- Associated with gram+ branching actinomycetes including:
 - *Amycolatopsis spp.*
 - *Crossiella equi*
 - *Streptomyces spp.*
 - *Nocardia spp.*

Nocardioform Placentitis

- Vast majority of cases are 10-11 month gestational age
- Abortions in last trimester
- Characterized as a quiet inflammation of placenta without infection of fetus.
- Major lesion is one of placental insufficiency due to damage to the placenta.
- Statistically significant association with hot, dry periods in August and September of the preceding year.

Nocardioform vs ascending placentitis

Nocardioform



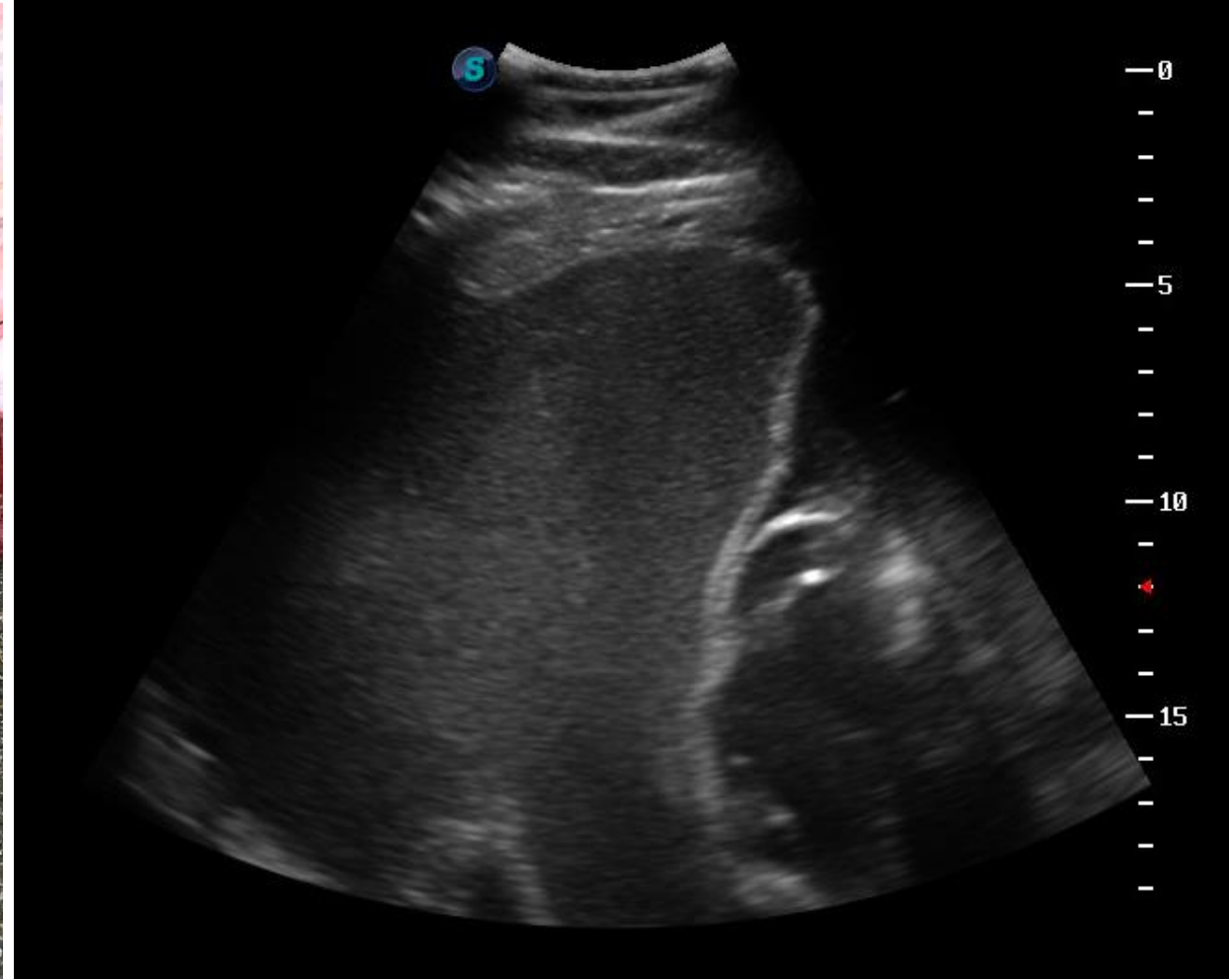
Ascending bacterial placentitis



Nocardioform placentitis

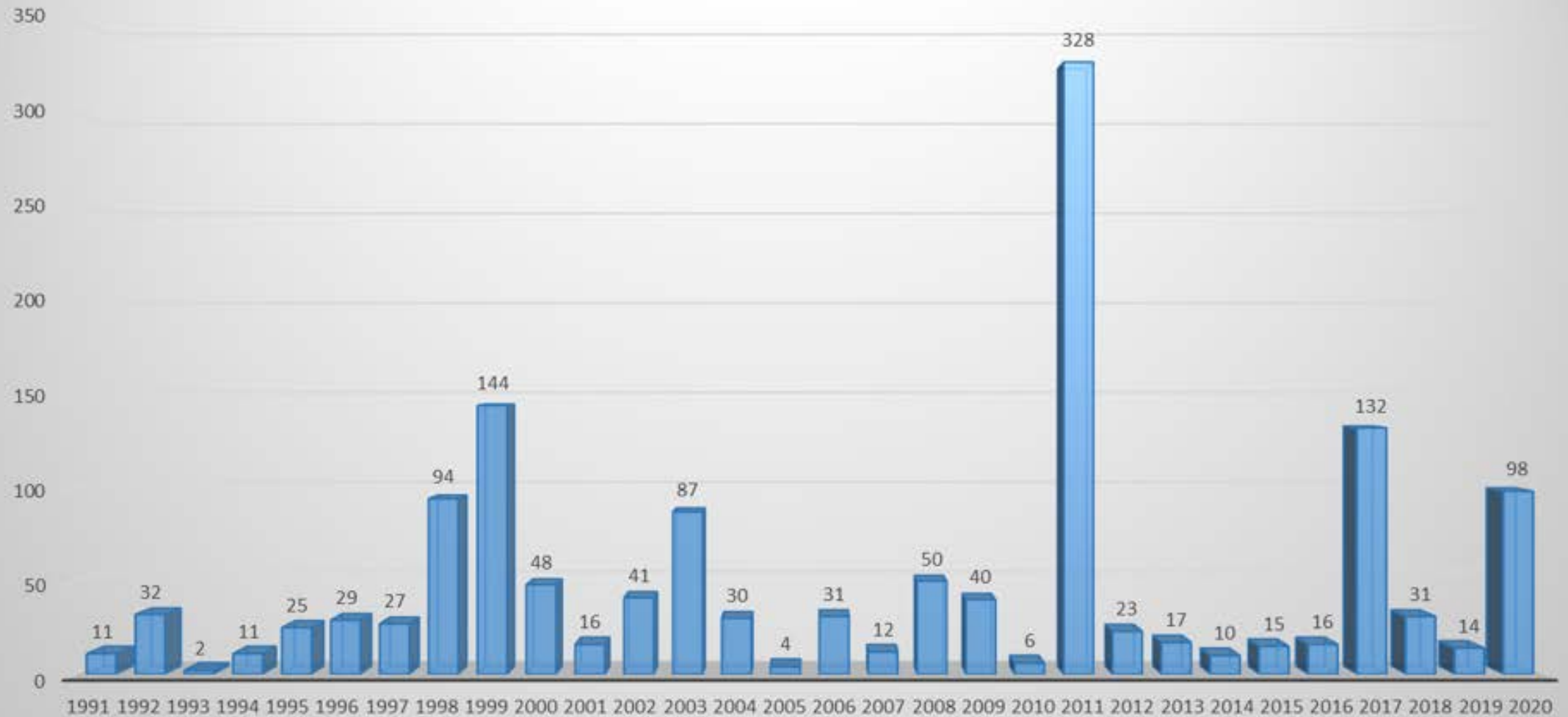


Courtesy of Dr. Christine Bartley



Courtesy of Dr. Kristina Lu

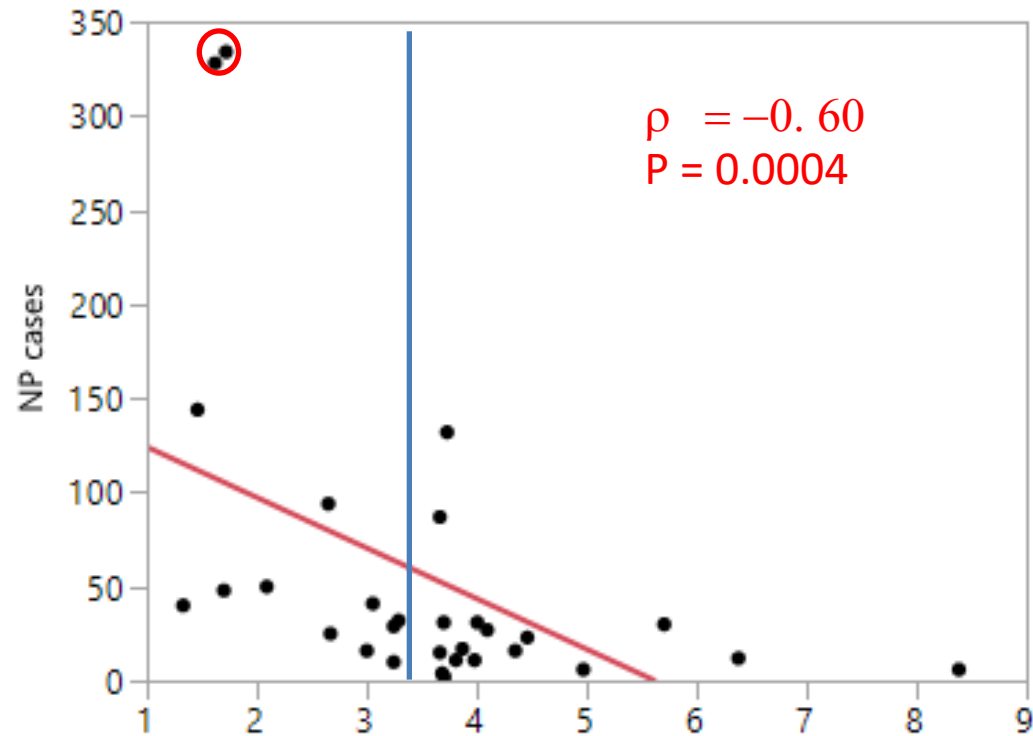
Nocardioform placentitis 1991-2020*



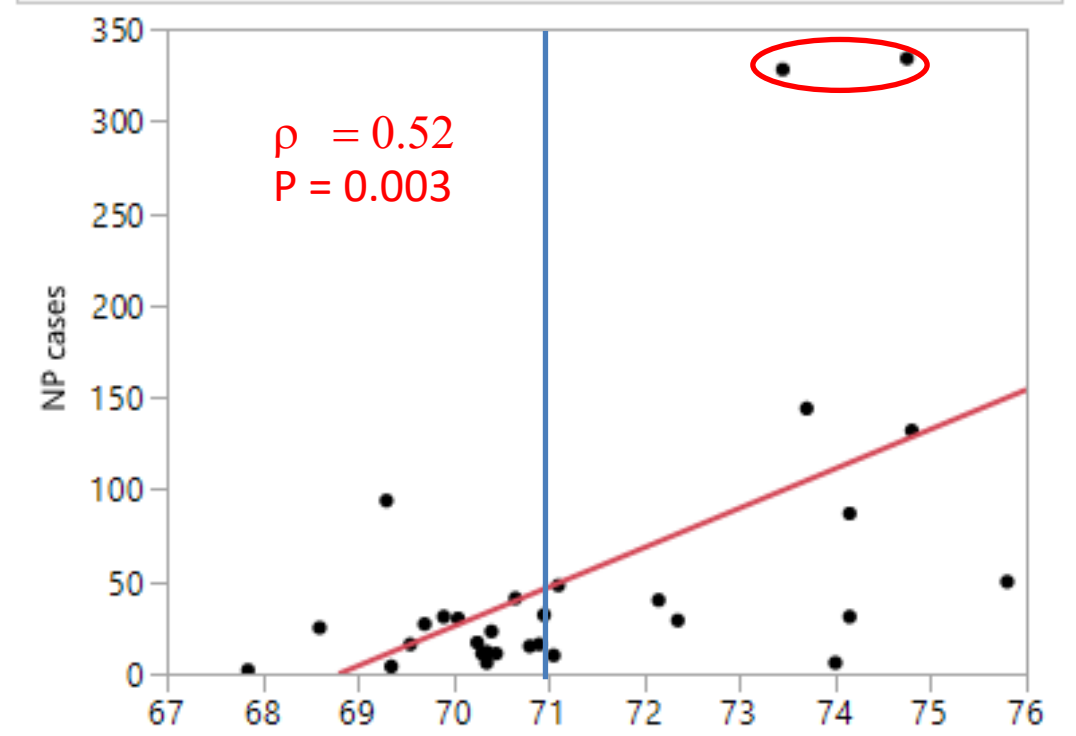
Foaling Year

* Through February 25, 2020

Relationship between late summer climate and NP cases. (1990-2020)



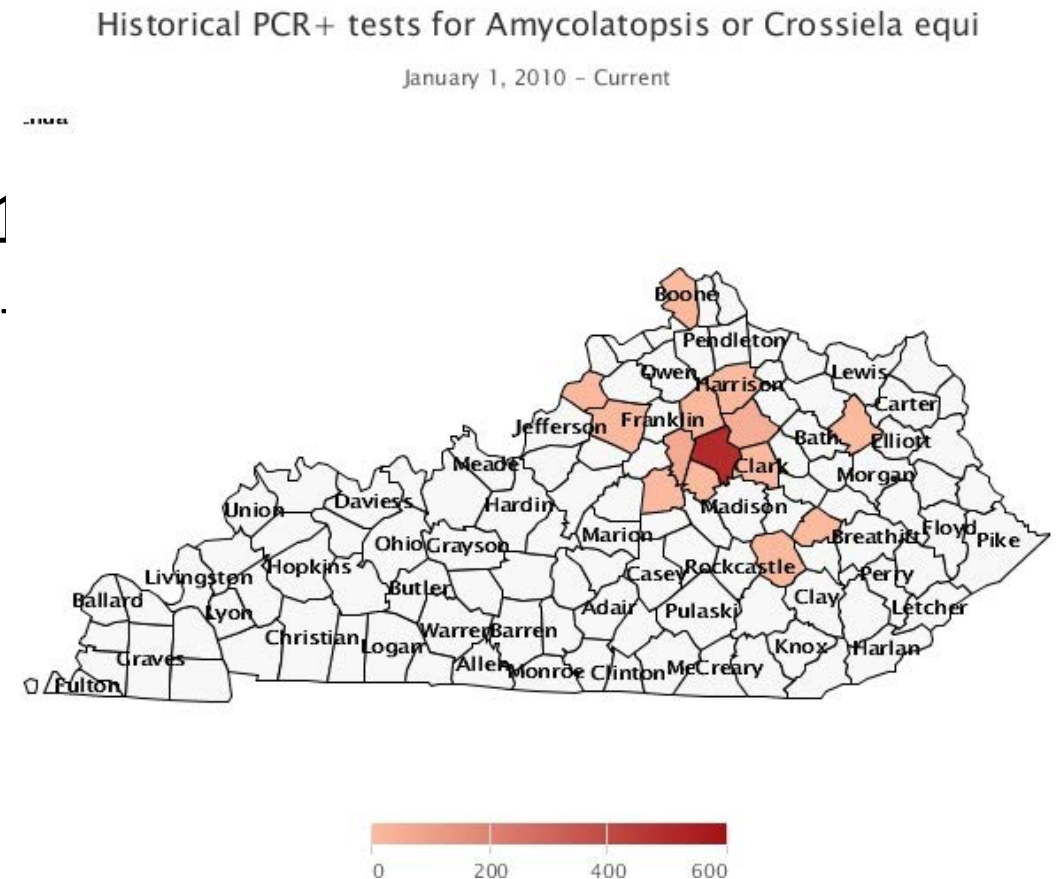
Mean rainfall (August / September)



Mean temperature – August / September

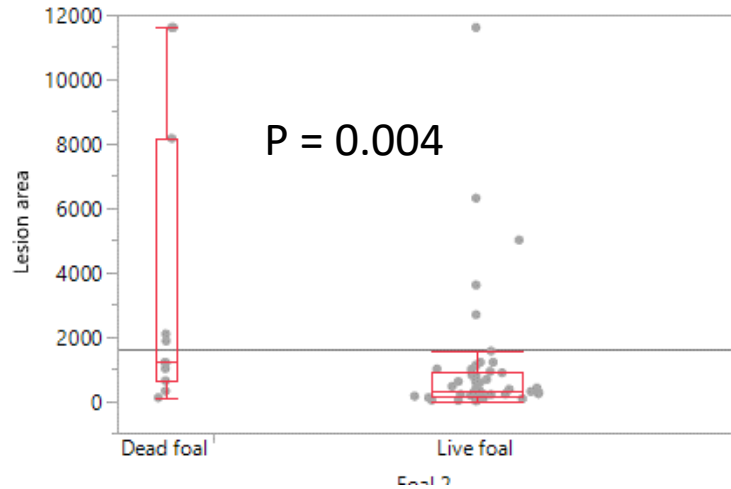
UKVDL submissions for Nocardioform placentitis: 2020

- Total cases submitted – 334
 - 130 dead foals and placenta
 - 204 affected placenta
 - TB foals registered in KY for 2018 – 8,1
 - 4.1% incidence of Nocardioform placenti

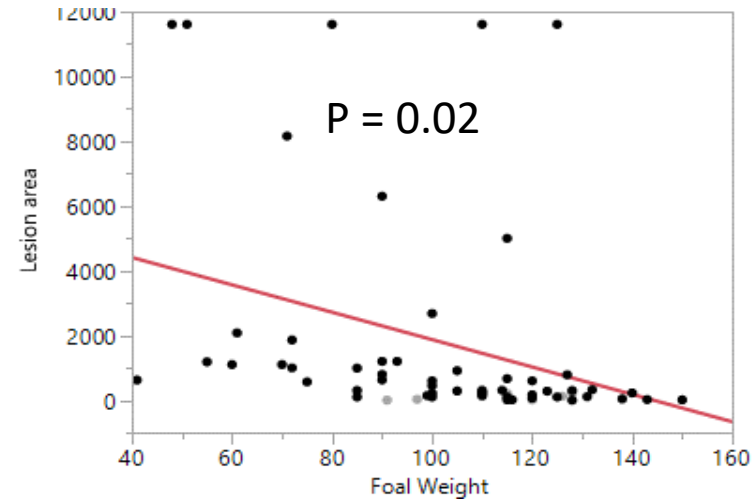


Foal outcomes: 2020 Nocardioform placentitis

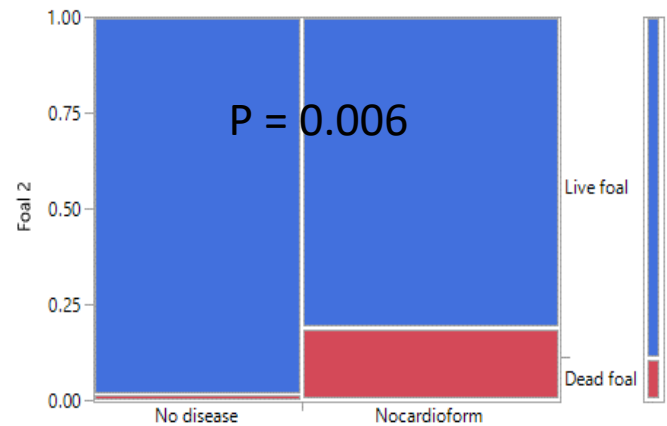
Lesion area v. foal outcome



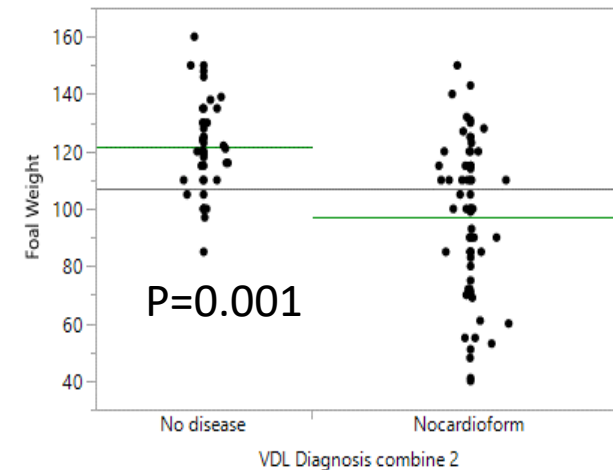
Lesion area v. Foal weight



Proportion of dead foals



Foal weight





Attempts to induce nocardioform placentitis (*Crossiella equi*) experimentally in mares

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- To investigate whether nocardioform placentitis could be induced through inoculation of *Crossiella equi*:
 - i) intrauterine during the periovulatory period
 - ii) intravenously, orally, intra-nasopharyngeal or intra-cervically in pregnant mares
- Examine the frequency of at which endometrial swabs (prior to and after mating) present evidence of nocardioform microorganisms

Nocardioform placentitis: Conclusions

- Nocardioform placentitis results primarily in placental insufficiency with effects on fetal growth.
- NP is associated with hot, dry periods in the preceding August – September.
- Pathogenesis of NP remains unclear.
- RNA Sequencing has revealed the pathways leading to placental insufficiency in the mare associated with NP.

More information –
Workshop on nocardioform placentitis

<https://gluck.ca.uky.edu/nocardioform-sept2020>



www.international-tbf.com

With many thanks to our guest speakers:

Sir Johnny Weatherby, Simon Cooper, John Fulton,
Dr John Grewar, Dr Guillaume Fortier & Dr Barry Ball

And the support of our partners:

