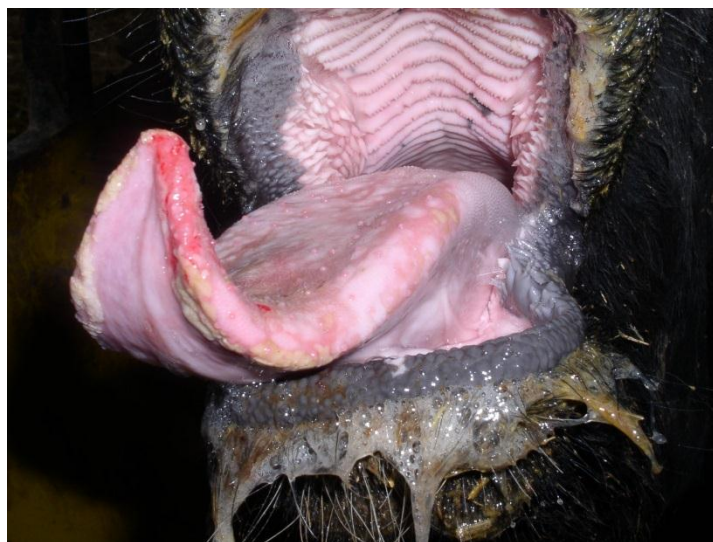




FMD in Israel



Nadav Galon, CVO
Veterinary Services and Animal Health, Israel



Susceptible Livestock Population

- Dairy Cattle – 120,000 (milking cows)
- Beef- Pasture – 35,000 (cows)
- Beef – Feedlot – 200,000 (steers)
- Sheep – 450,000 (ewes)
- Goats – 100,000 (does)
- Pigs - 15,000 (sows)

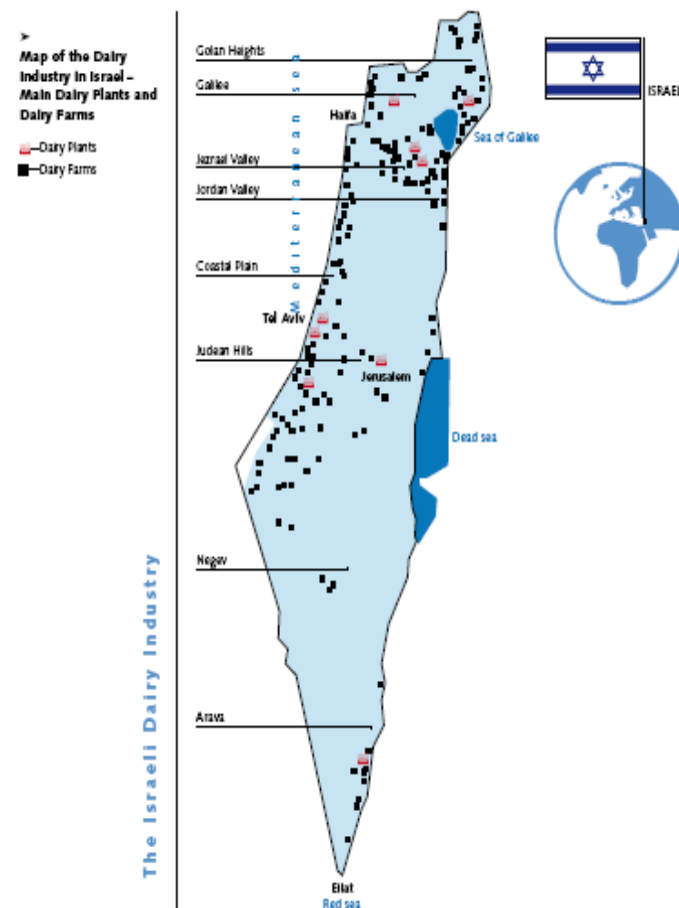


Ruminants farms distribution

Sheep & goats

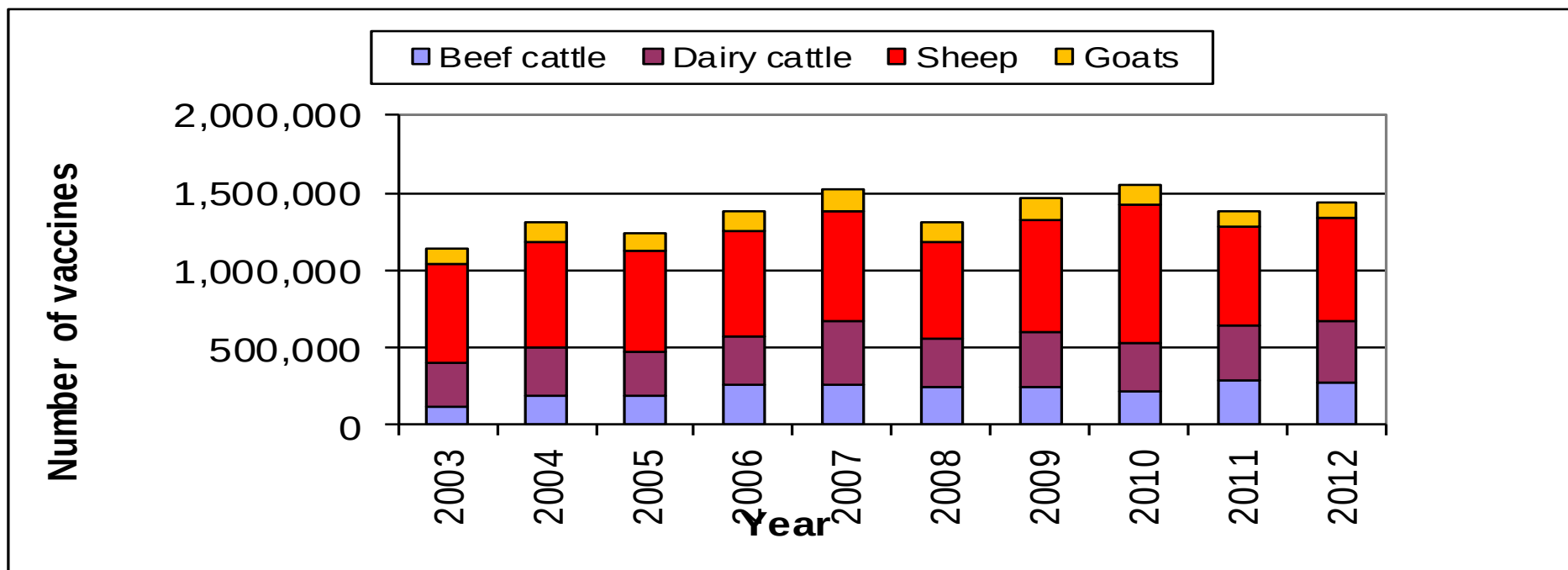


dairy





Mandatory Vaccination- Variable Compliance

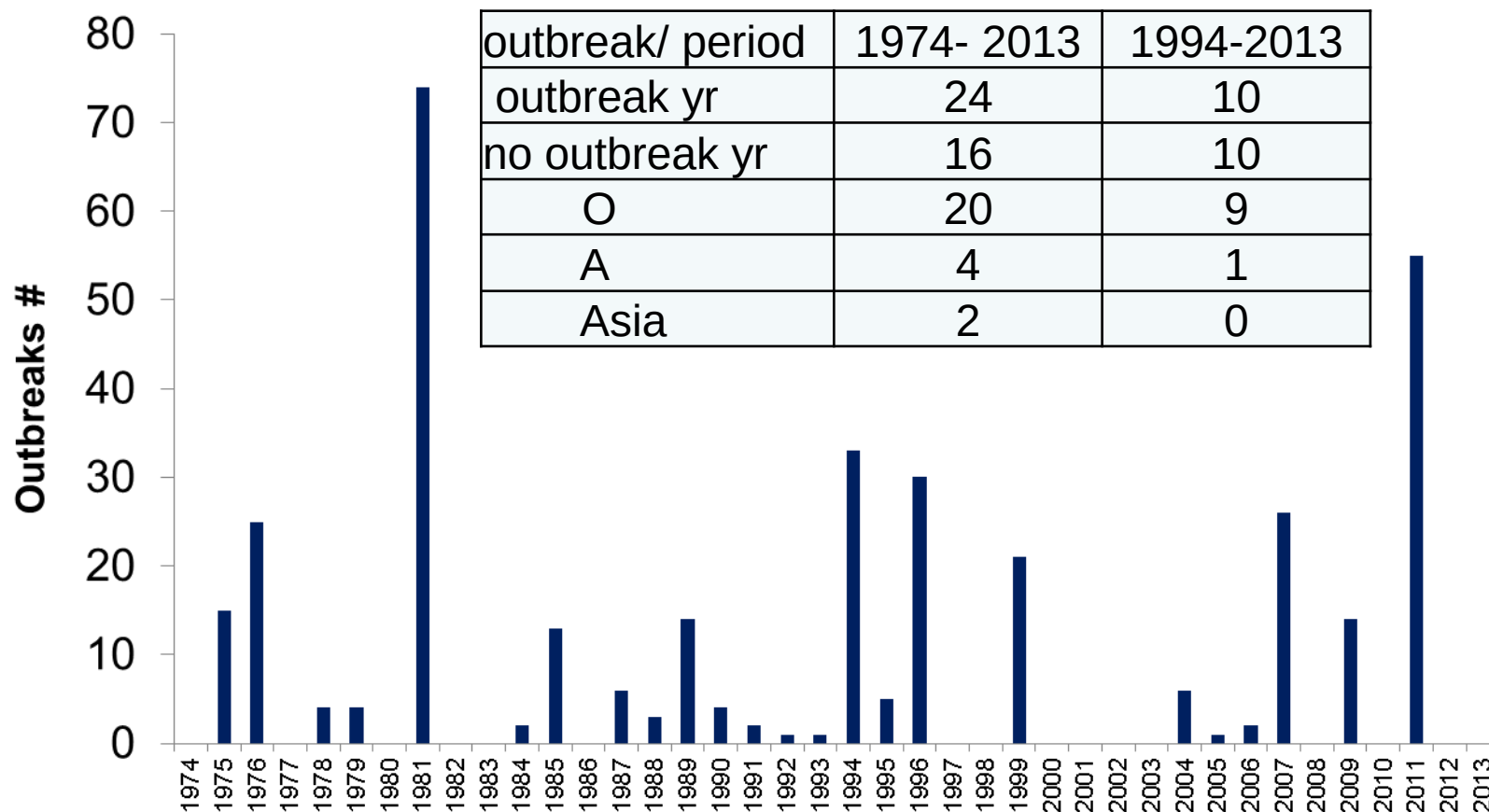


Trivalent O, A, Asia

Protocol: 2-3X in first year/ annual booster /outbreak booster



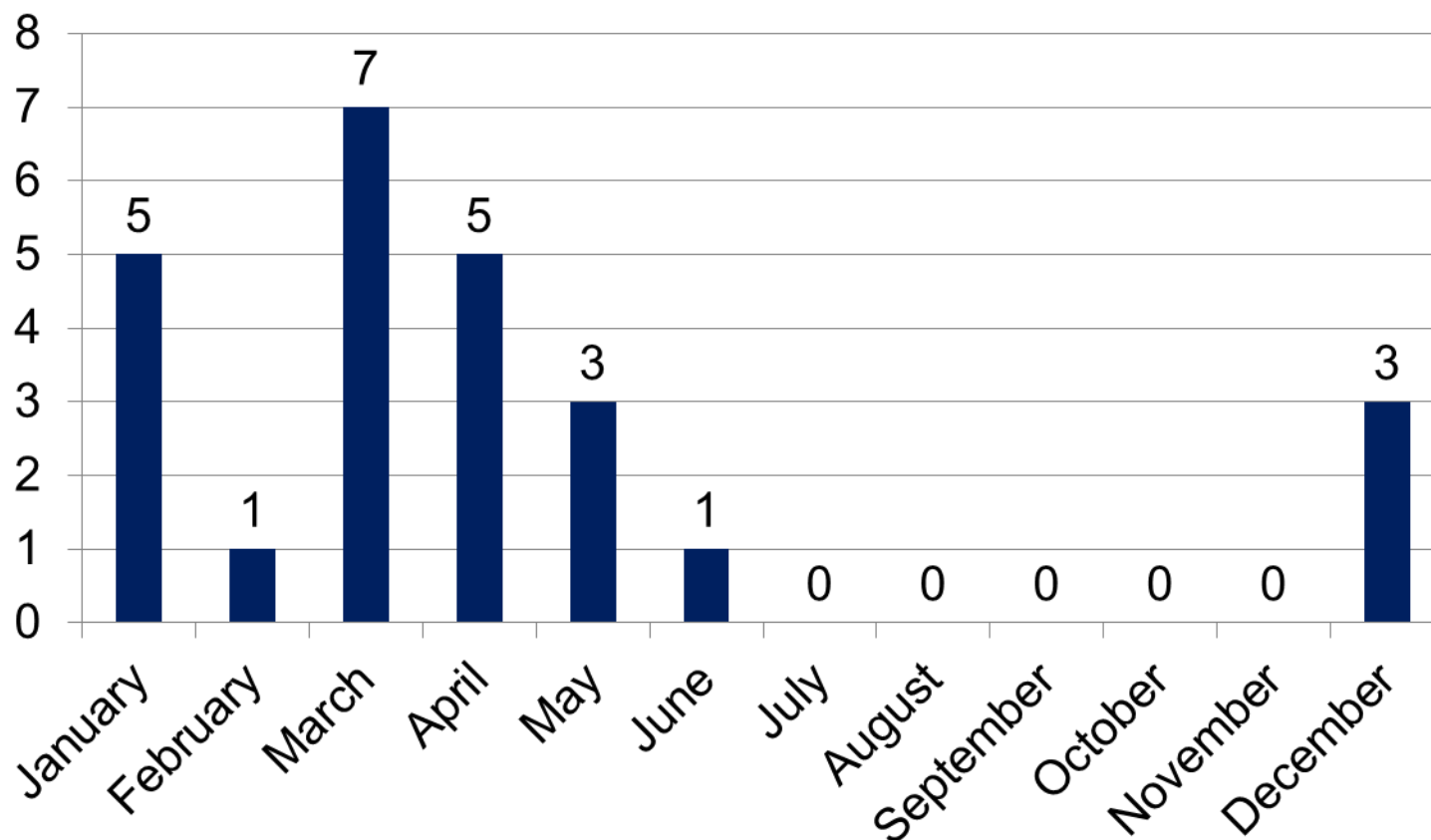
Annual # of outbreaks (1974-2013)



outbreak/ period	1974- 2013	1994-2013
outbreak yr	24	10
no outbreak yr	16	10
O	20	9
A	4	1
Asia	2	0

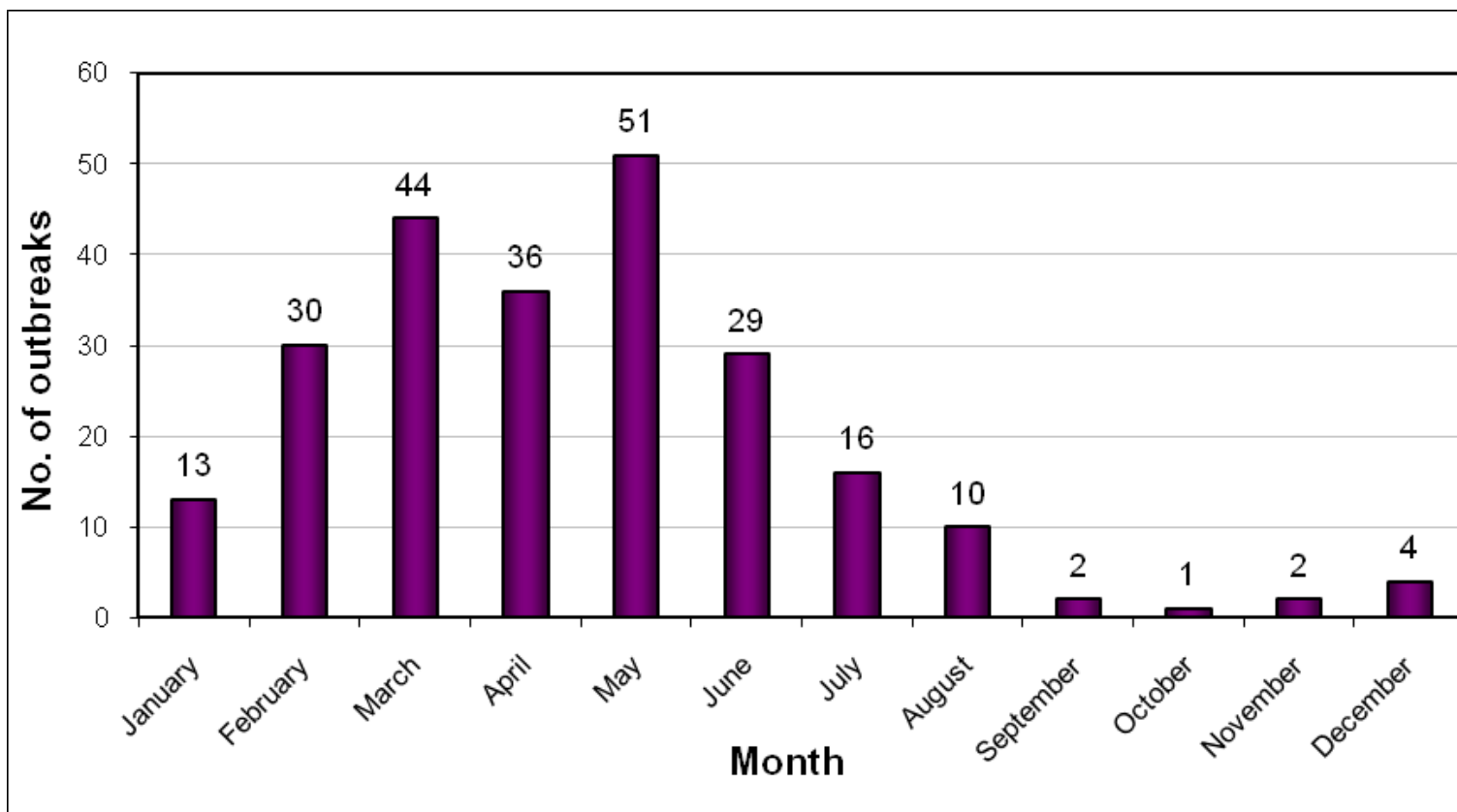


Month of Index Case (1974-2013)



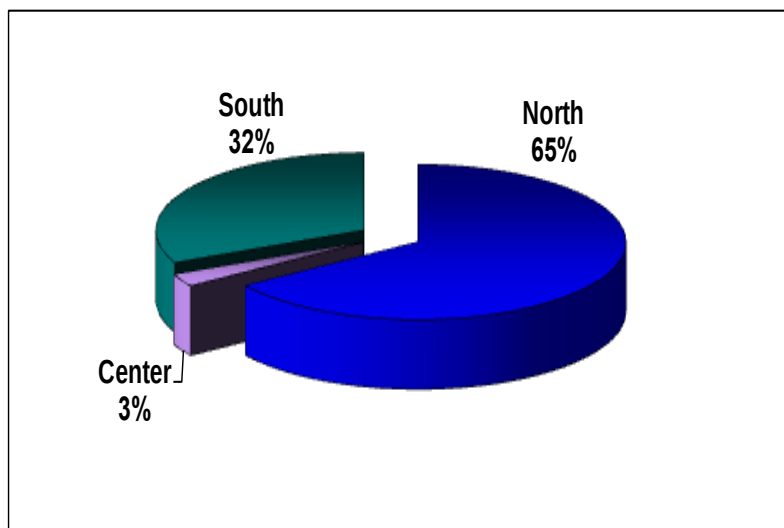


Outbreaks per month (1974-2013)

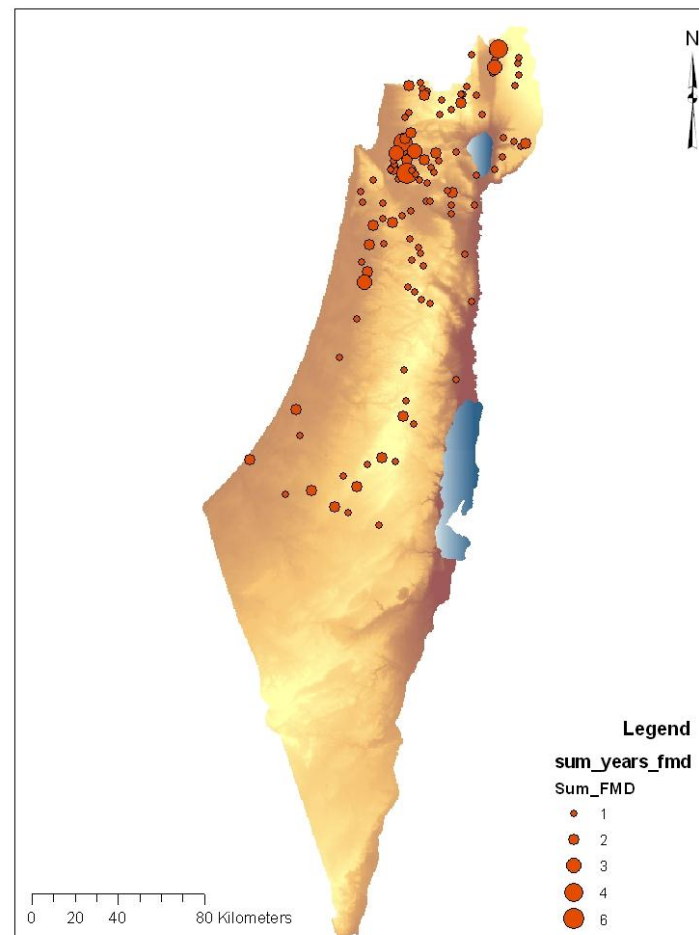




Geographical Distribution of Outbreaks

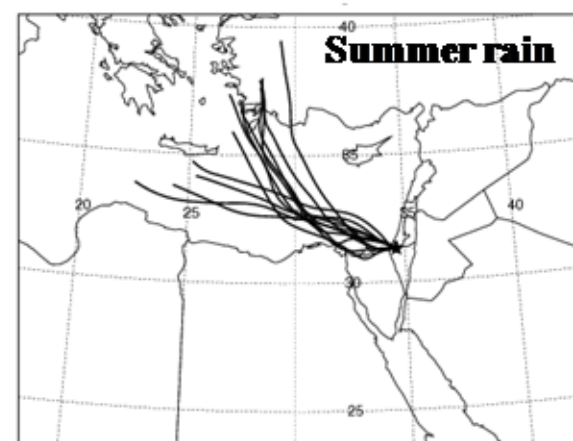
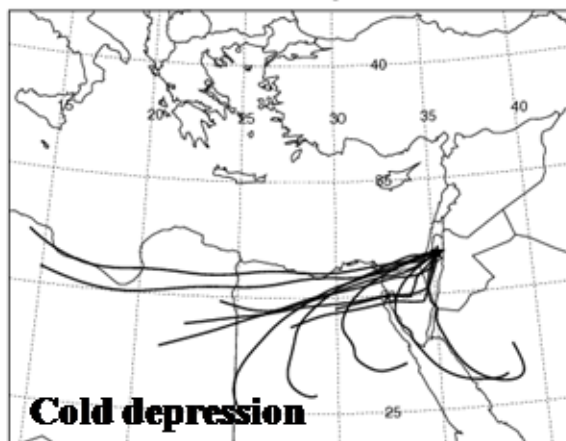
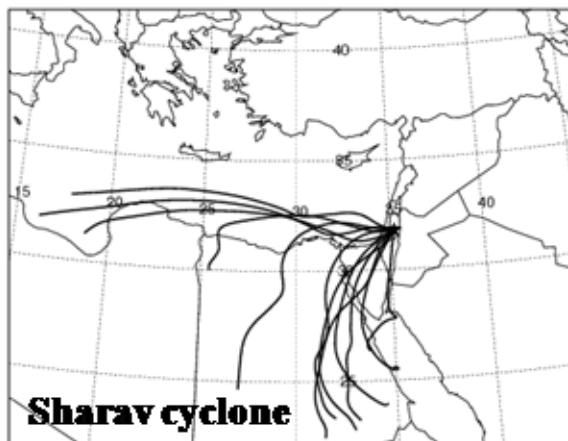
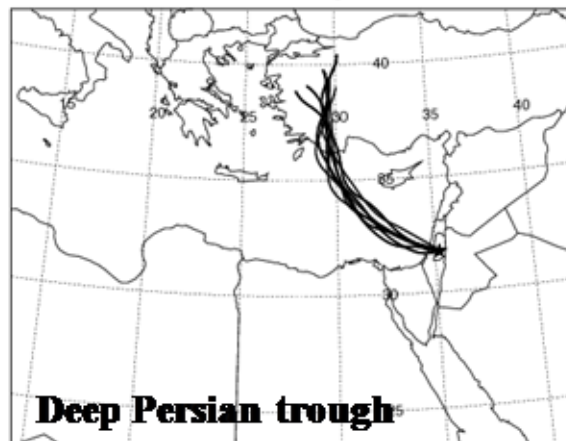
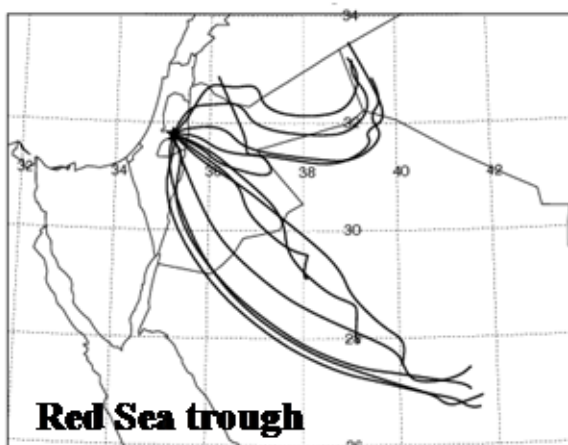


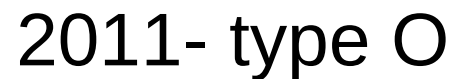
Most index cases
are near intl. border



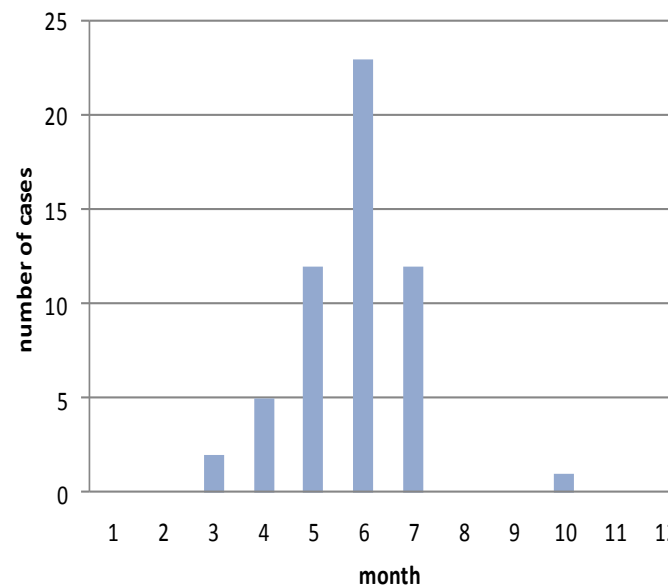


Endemic, Epidemic or Both ?



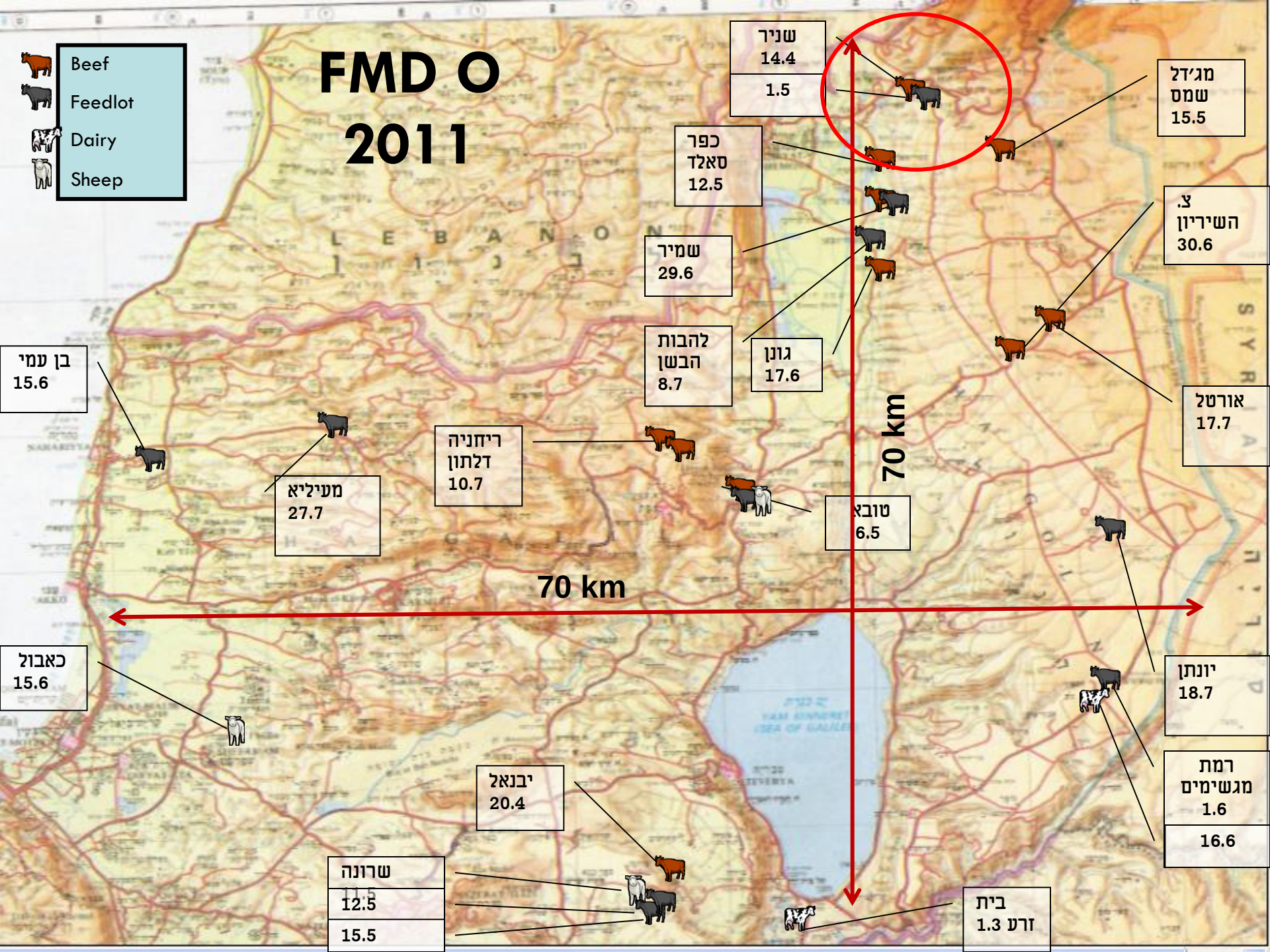


Sheep - 8



 Beef
  Feedlot
  Dairy
  Sheep

FMD O 2011





Why so many outbreaks in a vaccinated population?

- Vaccination compliance
- Vaccine matching (r_1 value for O1-4625 = 0.37 Klement)

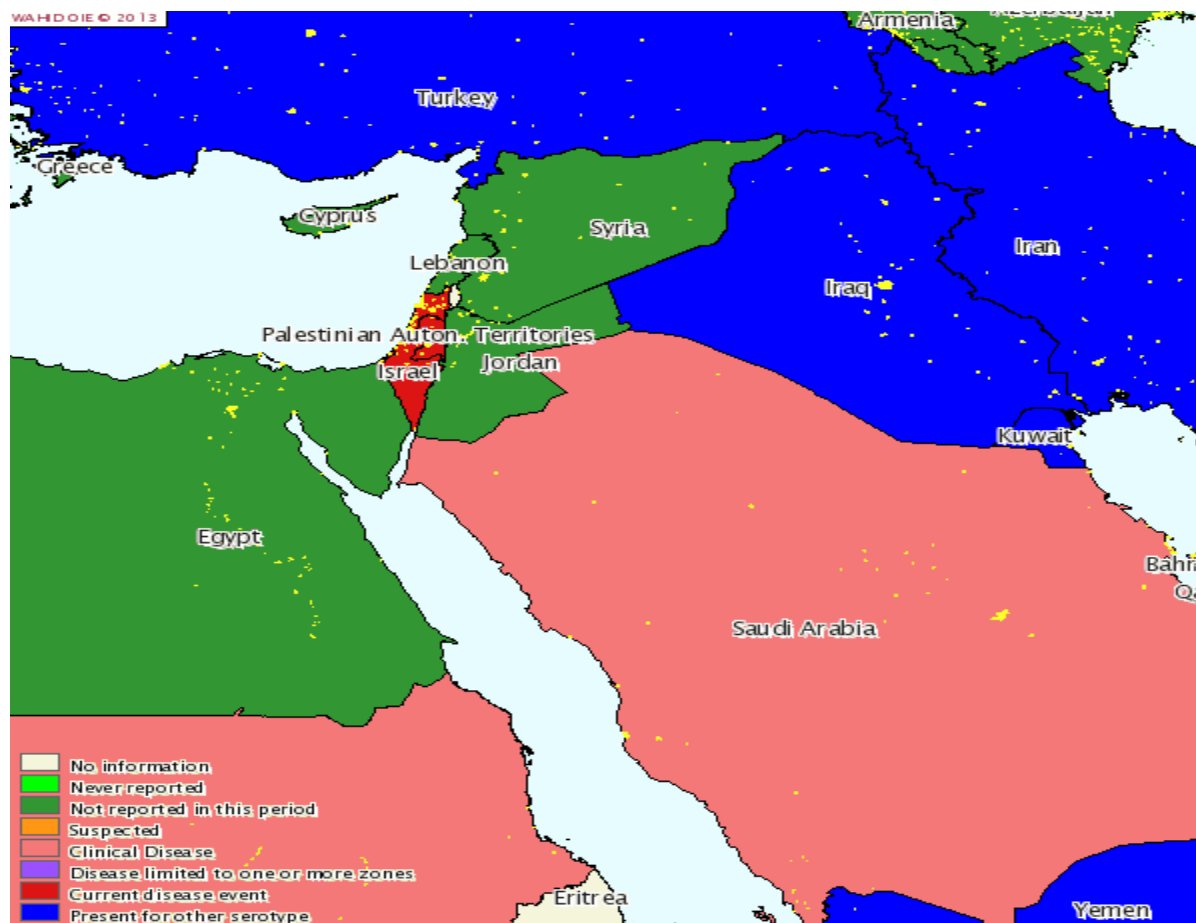
Report no:		VNT			
Vaccine		O 4625	O Campos	O Manisa	O Tur 5/09
Field Isolate:					
O Isr 11/2011	Mean	0.83	0.18	0.28	0.46
O Isr 26/2011	Mean	0.74	0.26	0.45	0.60

Pirbright

- Vaccination protocol
- Awareness and reporting - ID of index case
- Control measures enforcement

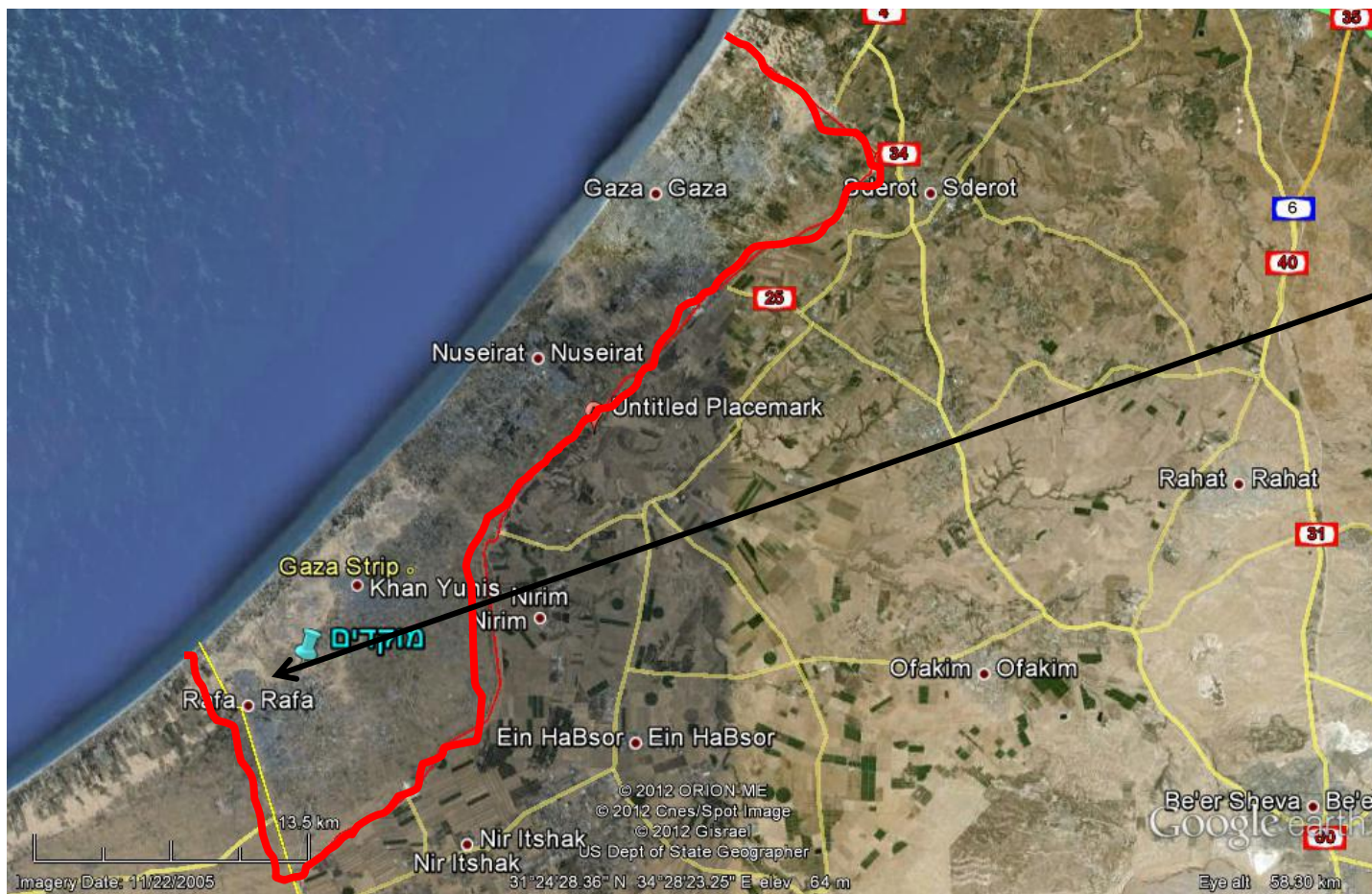


OIE Report January – June 2011





FMD in Gaza Strip 2012-2013



Rafah

04-2012 SAT2
3/120 steers
5/350 steers

03-2013 A
20/92 steers
5 /50 steers



Egypt – Gaza Border



40th General Session of the EuFMD • 22-24 April 2013, Rome (Italy)



SAT2 2012 Rafah - Vaccine Matching

FMD Vaccine Matching Strain Differentiation Report

Lab Reference WRL Batch Number: WRLFMD/2012/00017

Sender Details:

Dr Boris Gelman, Kimron Veterinary Institute, P. O. Box 12,
50250 Beit-Dagan, Israel. PHONE: (972) 03-9688910,
MOBILE: 0544-308206, FAX: (972) 03-9688970
EMAIL: gelmanb@int.gov.il

Date Received:

21st April 2012

Country of Origin:

PALESTINIAN AUTONOMOUS TERRITORIES

Date Reported:

8th May 2012

Report no:	2dmVNT		
Vaccine:	2dmVNT		
Field Isolate:	test ref:	Sat2 Eri	Sat2 Zim
Sat2 PAT 1/2012	mean	0.82	0.44



Challenges

- Suitable vaccine & available vaccine reservoir
- Improve vaccination compliance & protocol
- Active surveillance & regional collaboration
- Upgrade local Lab; subtype diagnosis
- Maintain & expend export; dairy products & bull semen



We seek collaboration

- On site training – Israel, PAT, neighboring countries
 - Clinical signs and sampling
 - Lab skills
 - Active surveillance
 - risk based
 - “hot spots” - Rafah , northern border
- Increased efficiency by 3rd party involvement
- Communication & bridging political difficulties
- Vaccine reservoirs & funding



Thank you

Acknowledgment

Dr. Michel Bellaiche

Prof. Eyal Klement

Dr. Boris Gelman

Prof. Arnon Shimshony

KVI & VS workers

