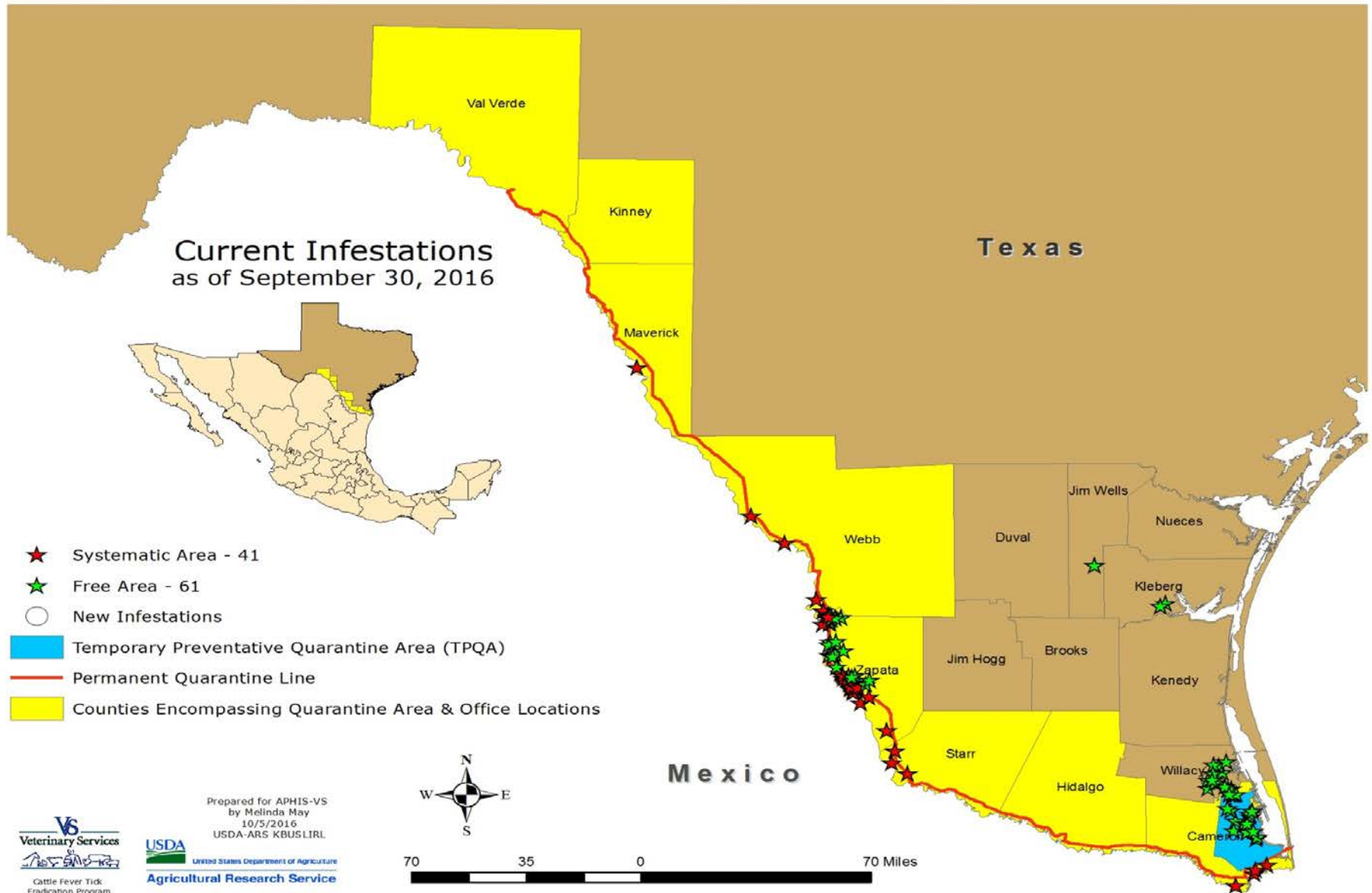


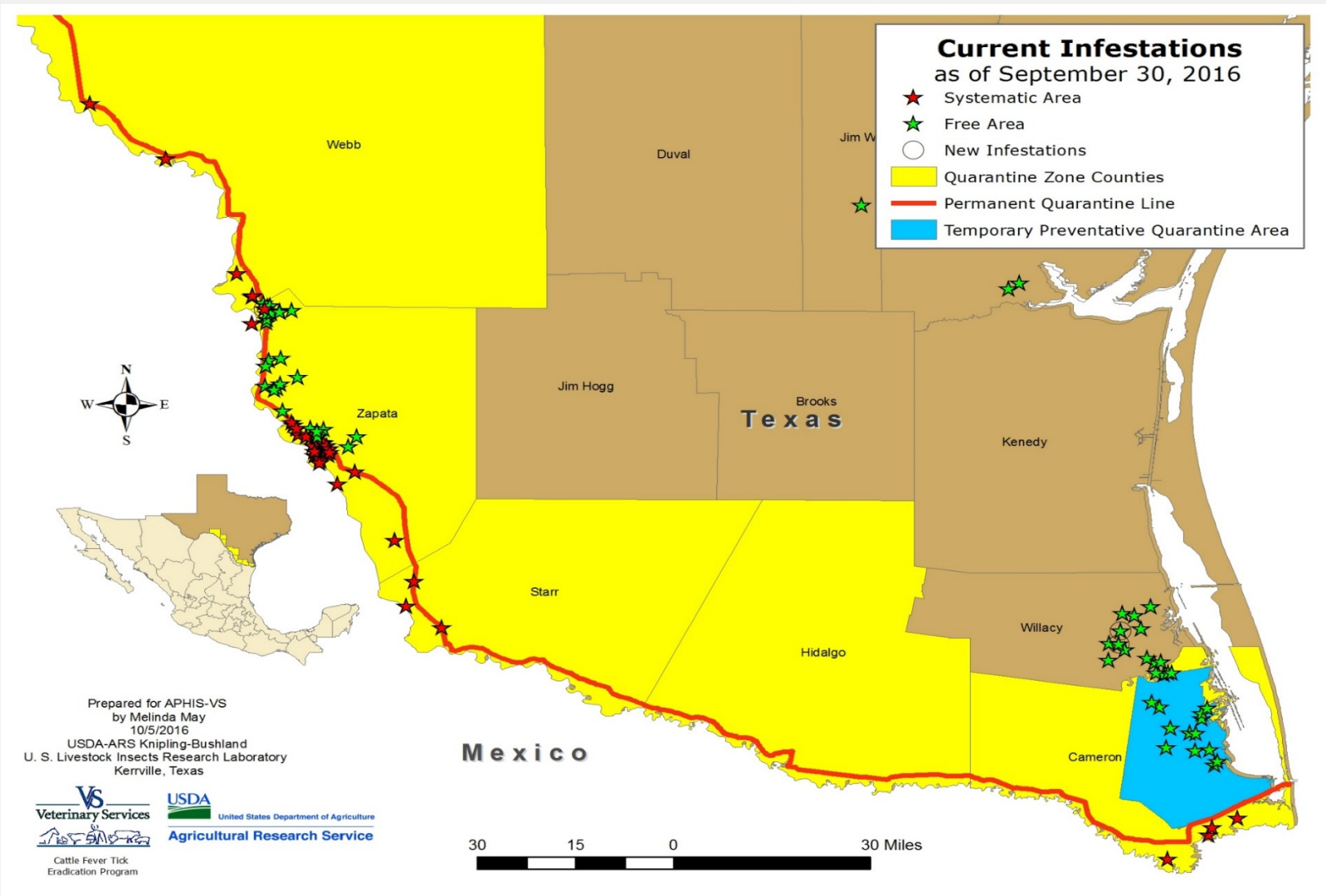


CATTLE FEVER TICK ERADICATION PROGRAM UPDATE

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INSPECTION SERVICE
VETERINARY SERVICES
10/19/2016







Total Quarantines

Type of Quarantine	Premises		Syst. Area	Free Area	Total
	Released	Added			
Infested	13	3	41	61	102
Native Exposed	1	2	18	20	38
Mexico Exposed	12	1	25	0	25
Adjacent/Check	21	56	288	1,573	1,861



Number of Infested Acres

September 30, 2016

Systematic Area					Free Area			
Work Area	Beginning Of Month	Released	Added	End of Month	Beginning Of Month	Released	Added	End of Month
1	0	0	0	0	115,643	0	2,375	118,018
2	22,040	0	0	22,040	0	0	0	0
3	2,645	2,066	0	579	0	0	0	0
4	7,494	0	300	7,794	12,401	0	0	12,401
5	8,857	2,400	0	6,457	7,300	0	0	7,300
6	1,200	0	0	1,200	0	0	0	0
7	0	0	0	0	0	0	0	0
Total	42,236	4,466	300	38,070	136,064	0	2,375	138,439

Fever Tick Vaccine

Tick Vaccine (ARS, Zoetis)

BM86 antigen based

R&D shows approx: 99% efficacy *R. annulatus*

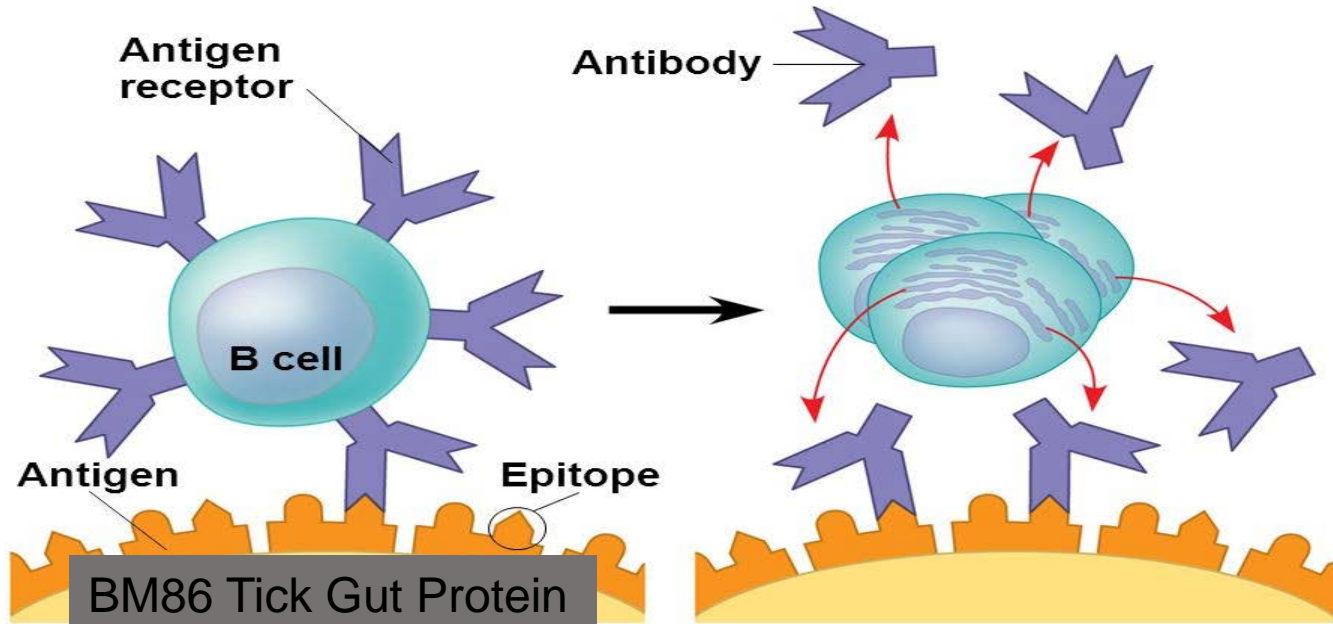
45% efficacy *R. microplus*



Basic Development of Immunity

Figure 43.10a

Figure 43.10a



(a) B cell antigen receptors and antibodies

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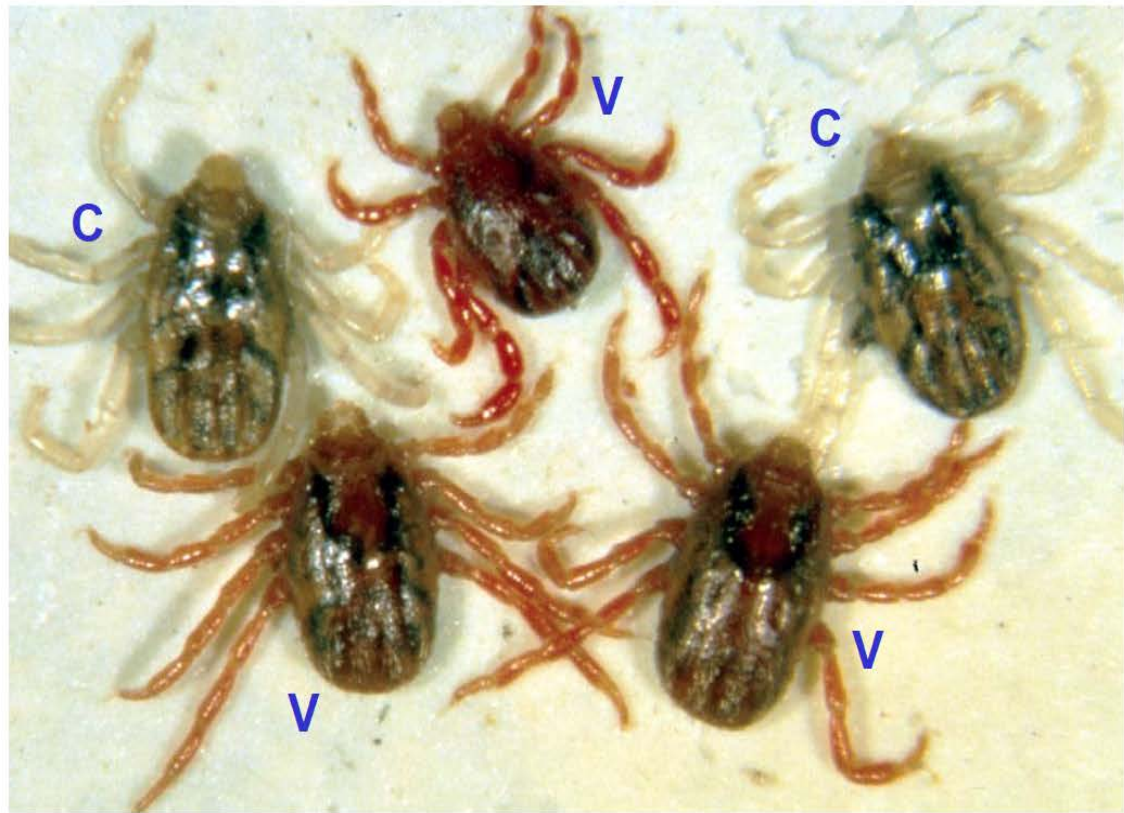
(a) B cell antigen receptors and antibodies

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Ticks after feeding on vaccinated and non-vaccinated cattle

V = vaccinate

C = control





Fever Tick Vaccine Guidelines

- Producer education – 5
- Employee education USDA/CFTEP – 7
- TAHC Vaccine Rule – annual dose PQZ
- Administered by employees/authorized agents of
USDA APHIS VS or TAHC for purpose of
Cattle Fever Tick Eradication Program
- Label dosage: 2ml IM, Initial dose, booster
4 weeks later, single dose booster every 6 mos,
60 day withdrawal



BM86 Tick Vaccine

FY 2016

**Total # Herds
Vaccinated
62**

**Total # Cattle
Vaccinated
1,576**

Summary

- Limited treatment options: Coumaphos, Dectomax, ivermectin treated corn, ivermectin molasses tubs, vaccine
- Wildlife challenges: White-tailed deer, Nilgai, exotics, refuge limitations
- Producer challenges: gather expense, 100% treatment
- Data management





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