From:	Patrick R Clarke
To:	Jack C Rhyan
Cc:	Matt McCollum; Pauline Nol; Rebecca K Frey
Subject:	Re: Fw: A quick idea to push "decreasing prevalence"
Date:	Sunday, February 14, 2010 12:29:00 PM
Attachments:	GnRH Bison Study Revised Projected numbers.xlsx

P. Ryan Clarke, D.V.M. USDA/APHIS/VS Regional Epidemiologist- GYA Belgrade, MT. (406) 388-5162 (b) (6) _______-cell

Jack C Rhyan/CO/APHIS/USDA 02/12/2010 04:09 PM To Patrick R Clarke/MT/APHIS/USDA@USDA

сс

Matt McCollum/CO/APHIS/USDA@USDA, Pauline Nol/CO/APHIS/USDA@USDA, Rebecca K Frey/MT/APHIS/USDA@USDA

Subject Re: Fw: A quick idea to push "decreasing prevalence"

Very cool. Here's something I've noticed. You take a perfectly sane (?), normal, fun-lovin' field vet, give him a little epi edumacation, and right away he builds spreadsheets in his spare time. Just an observation... not sayin' anything else.

Seriously, its very good. We should consider what to do with calves born in either group, especially the seropositive non-vaccinated group. Maybe hold them til fall and then necropsy them or put them in a quarantine process. It actually will be a continuation of the latency work. Jack

Patrick R Clarke/MT/APHIS/USDA 02/12/2010 03:25 PM To Jack C Rhyan/CO/APHIS/USDA сс

Rebecca K Frey/MT/APHIS/USDA@USDA, Matt McCollum/CO/APHIS/USDA, Pauline Nol/CO/APHIS/USDA

Subject Re: Fw: A quick idea to push "decreasing prevalence"

This sounds good! I made a spreadsheet to look at the numbers...taking into account repro failures, abortions, transmission,etc....to get a feel for the numbers and to start thinking about which properties we would use.

P. Ryan Clarke, D.V.M. USDA/APHIS/VS Regional Epidemiologist- GYA Belgrade, MT. (406) 388-5162 (b) (6) -cell

Jack C Rhyan/CO/APHIS/USDA 02/10/2010 09:46 AM To Patrick R Clarke/MT/APHIS/USDA@USDA, Rebecca K Frey/MT/APHIS/USDA@USDA

cc

Subject Fw: A quick idea to push "decreasing prevalence"

Here is a brief description of our proposed idea. What do you all think? Jack ----- Forwarded by Jack C Rhyan/CO/APHIS/USDA on 02/10/2010 09:44 AM -----

Brian J McCluskey/CO/APHIS/USDA 02/05/2010 04:13 PM To Jack C Rhyan/CO/APHIS/USDA@USDA

cc Matt McCollum/CO/APHIS/USDA@USDA, Pauline Nol/CO/APHIS/USDA@USDA Subject Re: A quick idea to push "decreasing prevalence"

This is good, really good. I will visit with Dr. Clifford next week about refocusing our efforts on decreasing prevalence and about this project specifically.

Brian J. McCluskey, DVM, PhD, Dip. ACVPM Director, Veterinary Services, Western Region Fort Collins, CO 970.494.7385

Jack C Rhyan/CO/APHIS/USDA 02/05/2010 03:23 PM To Brian J McCluskey/CO/APHIS/USDA@USDA

сс

Matt McCollum/CO/APHIS/USDA@USDA, Pauline Nol/CO/APHIS/USDA@USDA

Subject A quick idea to push "decreasing prevalence"

Brian,

At our Starbucks brainstorm session on the way back to NWRC, we came up with this idea.

Brogan's will be bison-free next week. In March Marty will start catching bison on the west side. We can collect 40 non pregnant heifers (seropositive and seronegative) and 4 bulls at the trap on the state ground and place them at Brogans (or slip and slide) and begin a study to investigate what effect GnRH vaccine has on brucellosis transmission in YNP bison.

In brief, after a period of several months' monitoring to find any seroconverting bison:

Pasture A will contain 10 seropositive GnRH vaccinates, 10 seronegative nonvaccinates (sentinels) and 2 seronegative bulls.

Pasture B will contain 10 seropositive non vaccinates, 10 seronegative nonvaccinates (sentinels) and 2 seronegative bulls.

Over 3 years we will monitor calving and abortion results in all animals, and seroconversion to brucella seropositive in the sentinel groups

At the end of the study, we necropsy and culture the seropositive vaccinates and non vaccinates

Hypothesis A: The use of GnRH vaccine reduces brucellosis transmission in bison. Hypothesis B: Bison experiencing 3 years of anestrus have less brucella infection than normally cycling and calving bison (based on culture positive tissues and colony forming units per gram of tissue).

Hypothesis B is just something we have speculated about and this would be a perfect chance to test it. Also a

perfect chance to test the Z nose in detecting brucellosis.

The best part of the study is the interpretive sign we put on the highway: "Investigation of a contraceptive vaccine as a non lethal method of controlling populations and decreasing brucellosis prevalence in bison." Also interviews we do with the news media, etc.

I ran it by Marty to see if he approved on not. He loves it. We could start it this spring. The NEPA issues for bison collection are already covered in the IBMP EIS. If we collect the bison on the west side we won't need YNP's blessing or research permit.

Down side: We have to keep the lease going a while longer. We will be dealing with hot brucella fetuses (We and Ryan and Becky are experienced with that). It'll set Suzanne's hair on fire.

What are your thoughts? Jack