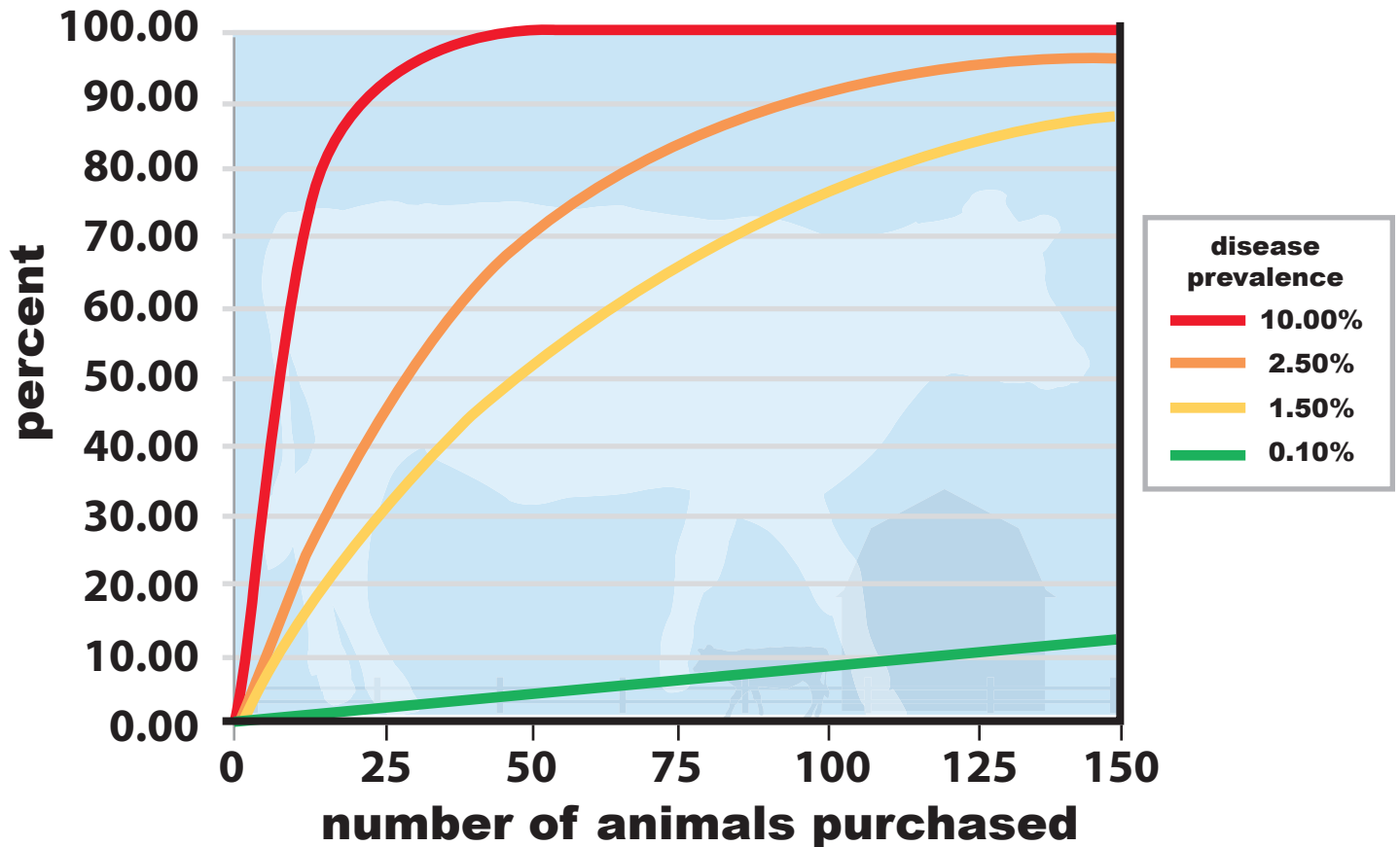


Probability of purchasing at least one infected animal from sub-populations of different prevalence-levels of infection



Modified from: David R. Smith DVM, PhD, DACVPM—Personal Communication.
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THIS GRAPH HELPS VISUALIZE the probability of purchasing at least one infected animal. The estimations are based on the prevalence of a particular disease in a given population. Let's look at an example of purchasing 50 head of cattle from a farm. It has been estimated that the prevalence of BVD persistently infected (PI) cattle is 1.5% in the general population (range 0.4–2.0%). If 50 head were purchased from this example herd, the probability of buying at least one BVD PI animal would be approximately 45% (yellow line—third line from top). Based on the prevalence of Johne's disease in the general population of dairy cattle of approximately 2.5%, the probability of buying at least one Johne's infected animal would be 65% (orange line—second line from top).

