

M04t14_ReporductiveCapability

Indicator 17 is reproductive capacity. This is an interesting concept because too often people will go out and look for the presence or absence of young plants or seedlings. That's not what we're looking for here; we're looking for the ability of the well established plants to reproduce. That may mean the ability of those plants to produce flowers, produce seed and without knowledge as to whether those flowers, the seeds that are going to be produced are going to find a place on the ground and be able to, to ultimately germinate and make new plants. So, again, the picture you see on the, your left in this slide has a number of plants, forbs and grasses that are in full flower and therefore most very likely to be producing seed this year which will then go in to the seed bank. So, these plants in the community in which they exist have the capacity to reproduce. It doesn't mean that the weather will cooperate. It doesn't mean that grazing will be managed in such a way that it's assured that some of those seed, for instance, from the bottlebrush squirreltail in the background, actually get on the ground and germinate and grow, but, the fact is that this indicator has measured, is looking at whether or not these plants can even produce the seed. Same site, in both of these were in Northern Utah, the same site then on the right shows a bitter brush plant in the foreground that you can see is very, very heavily hedged or browsed by deer, this is a heavy deer use area where this particular, where this picture was taken and you don't see very many flowers or evidence of seed production on this plant and while it's almost out of, it's a little bit out of focus, if you look behind this plant, you'll also see what few grasses and other plants that you can see growing there in the background, they don't particularly look anywhere near

as vigorous and healthy in ability to produce seed as do the plants that you see in the left-hand slide. So, when we, when we evaluate this indicator we're looking for their ability to produce seed, to flower, produce seed, some people argue that it's a surrogate for vigor and you might, you might think about that, but, but, we basically have said that no, what we wanna see is the ability to constantly restock the seed bank in the soil so when conditions are right, either climate conditions or management conditions are right, there will be the opportunity for the plants to reproduce and so that's indicator 17. Its primary role in evaluating Rangeland Health is an attribute for biotic integrity. So, I now wanna look at this list again, this is the list of standard indicators, all 17 of them that we use in evaluating Rangeland Health. I'd look at this list and I say there is nothing new here, a range manager, range scientist, since the beginning of our profession has worked with one or more of these at one place or another or at one time or another in trying to assess rangeland condition or health or capacity, what a word you wanna use. So, there is nothing new in these indicators. What is new is the fact that Rangeland Health, the Rangeland Health process has put them together into a strategy by which you look at more than one at any one time and you have a process to evaluate how much departure there is from the reference condition so that you can make a judgement as to how badly or poorly one of these indicators is performing. That kind of use of these indicators is new, but, I wanna leave you relative to the indicators with the ideas that what you see here are things that have been studied in college classes before.