

How we estimate our Deer Population and Harvest Requirements

I recommend that if your property is not under a high fence then you should not attempt to calculate your deer population using the number of individual Bucks that you counted. The reason for this is because you may be getting some pictures of Bucks that spend most of their time off of your property during hunting season. Remember that we are getting these trail cam pictures in the late summer and not during hunting season. We are trying to come up with a good estimate of how many resident Bucks are on the property during hunting season. (By resident Bucks I mean Bucks that spend **Most** of their time on your property) You need to determine this based on your own specific situation. Maybe you aren't drawing a lot of Bucks to your property because you don't have food plots and you aren't offering supplemental feeding. In this case maybe you aren't getting pictures of a lot of nonresident Bucks. If you have over 1000 acres you may be able to come up with an estimate of your resident Bucks but you need to make that decision based on your own situation. We draw quite a few Bucks to our property because of our food plots and supplemental feeding. Remember that the most important thing you can do is track your harvests and camera counts/sightings so you can see if things are going in the direction that you want. If you (or your neighbors) over harvest the deer then that will probably show up in your sightings statistics (or camera counts) in the Basic Version of the software.

With that being said I will explain what I am doing. Each season I actually print a picture or two of each individual Buck that I got a picture of and I put them in a Book that all of our hunters can look at. Throughout hunting season as everyone see's different Bucks we take note if we recognize the Buck as having a picture in our book. For those of us who are videoing the Bucks we can easily look for the Buck in our book. For those who aren't videoing they can usually recognize the Buck's picture if it's in the book. We do see some Buck's that are not in the book but we usually just see them one time which tells me the Buck was just passing through. What I have determined over the last few years is that we usually see about 70% of the Bucks that we had gotten pictures of. The other 30% were obviously from neighboring properties. As a result of this I take the number of individual Bucks that I counted and printed pictures of and multiply it by .70 to come up with an estimate of our number of resident Bucks during hunting season. I am definitely not inferring that you should use .70 or some other percentage or that you should even attempt to do this unless you feel something like this may work in your situation. Please don't underestimate the effort that we go through to keep an eye on our deer population. We go out on the property in the late summer and can see 50 deer on just two of our food plots. I'll do a manual count just to see what the Doe to Buck Ratio and Recruitment Rate are looking like. This is just another way of checking our Doe to Buck Ratio and Recruitment Rate. We also take our video cameras out pre-season and get some good video. Our sightings and harvest history by year allows us to keep an eye on our deer population so we can see if there are any averages looking out of line in the latest season. Remember after all is said and done our Harvests and Sightings information is the most important thing that we do! If we end up shooting too many deer we will probably see this reflected in the next year's sightings or camera counts.

Let me give you an example of what we do. I had counted 54 different Bucks so in the first example below look at what the population and harvest estimate is. I then took $54 \times .70$ which gave me 38 different Bucks which is what I ended up using for number of individual Bucks counted. Compare the differences between the two estimates. If I had used the estimates from the 54 different Bucks then we would have definitely harvested too many deer. Again, the Harvest Estimate is just a guideline for us.

Deer Population & Harvest Estimate (Starting with late summer counts)

Number of Individual Bucks Counted	54				
Doe to Buck Ratio (x.xx : 1)	1.30	to 1			
Fawn Recruitment Rate	0.750				
Estimated Total Deer Population	177		Bucks	Does	Fawns
Mortality Rate for Does i.e. 10% = .10	0.10		54	70	53
Mortality Rate for Bucks i.e. 15% = .15	0.15				
Desired # of individual Bucks next Summer	54				
Desired Ratio next Summer (x.xx : 1)	1.30	to 1	Bucks Wanted	Does Wanted	Fawns Wanted
Total Deer Population Desired next Summer	177		54	70	53

	Does	Bucks	Total
Beginning Population (Including Fawns)	97	80	177
Estimated Mortality	10	12	22
Harvest Estimate	17	14	31
Ending Population	70	54	124
Fawns added next year	27	26	53
Next Summer Population	97	80	177

Deer Population & Harvest Estimate (Starting with late summer counts)

Number of Individual Bucks Counted	38				
Doe to Buck Ratio (x.xx : 1)	1.30	to 1			
Fawn Recruitment Rate	0.750				
Estimated Total Deer Population	124		Bucks	Does	Fawns
Mortality Rate for Does i.e. 10% = .10	0.10		38	49	37
Mortality Rate for Bucks i.e. 15% = .15	0.15				
Desired # of individual Bucks next Summer	38				
Desired Ratio next Summer (x.xx : 1)	1.30	to 1	Bucks Wanted	Does Wanted	Fawns Wanted
Total Deer Population Desired next Summer	124		38	49	37

	Does	Bucks	Total
Beginning Population (Including Fawns)	68	56	124
Estimated Mortality	7	8	15
Harvest Estimate	12	10	22
Ending Population	49	38	87
Fawns added next year	19	18	37
Next Summer Population	68	56	124

So in summary, if you can estimate how many resident Bucks you have at the beginning of hunting season then you can use the Deer Population and Harvest Estimate calculator. You can see how this tool could work

well for many high fence operations and large acreage properties as long as they can get a good estimate of how many different Bucks they have.