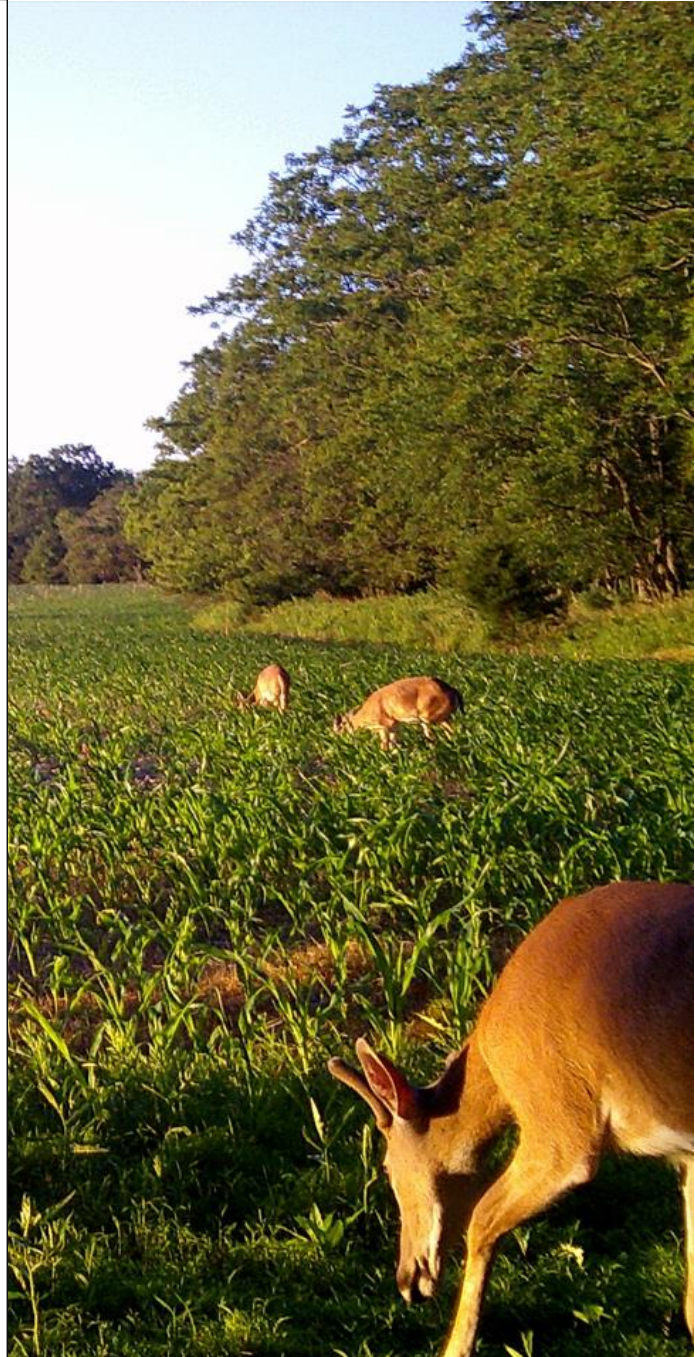


WE **R** HERE WHEN YOU NEED US

**White Tailed Deer and
the Costs to Farmers'
Livelihoods: A Case
Study of New Jersey
Stories**

Setting the Stage

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RUTGERS

New Jersey Agricultural
Experiment Station

Setting the Stage

We are fortunate to have white-tailed deer in New Jersey. Deer provide many positive benefits including wildlife viewing, photography and recreational hunting that contribute hundreds of millions of dollars in economic benefits annually (Drake et al. 2005). Many New Jerseyans enjoy going for a hike and the thrill they get when they see deer. Then they may notice the negative impacts to the forest. The native plants that should be there are being replaced by thorny invasive species taking over the ecosystem. There are other times when that thrill can become anxiety like seeing a deer on the edge of the road when driving. For others, there may be frustration from deer eating backyard gardens or residential landscaping. Some people have concerns about ticks as deer are one of several species that carry them during their life cycle. Many of us can relate to these experiences as they touch our lives on a daily basis.



Figure 1. Research plot at the Rutgers Hutcheson Memorial Forest before (above) and after (below) invasive plant removal. Photos - Scarlett Simpson.



For decades white-tailed deer have been changing the composition of New Jersey forests by eating native plants and facilitating the spread

of invasive plant species that threaten native herbaceous plants and tree seedlings (NJAES 2020). This is illustrated by the photos of a student standing in the same research plot at the Rutgers Hutcheson Memorial Forest before and after invasive plants were removed (**Fig.2**).



Figure 2. Deer in a residential area of New Jersey. Photo - Joseph Paulin.

Residential areas (**Fig.3**), and unmanaged public and private lands serve as refuges where deer often spend time during the day before heading to the farm fields to feed at night (**Fig.1**).

“If we are going to see agriculture succeed near residential areas of New Jersey, we need to take into account for a balance of people, nature, and an appropriate amount of wildlife. We need to find a healthy balance for our forests and our roadways.” – Case Study Farmer

Approximately 25,000 deer-vehicle collisions take place in New Jersey each year with insurance payouts of over \$100 million (State Farm Insurance 2016). A deer standing next to the side of the road as traffic passes by is a common scene for New Jersey drivers (**Fig.4**).

As we drive around the Garden State and see the many farms that help put food on our tables, there are things that may go unnoticed. We may

not realize the damage and the losses that occur (**Fig.6**).



Figure 3. Deer standing by the side of the road as a vehicle drives by. Photo - Joseph Paulin.



Figure 4. Farmer planting field corn. Photo - Joseph Paulin.

We fail to recognize that the farmers we see out in the fields were up much of the night dealing with deer that were eating their crops.



Figure 5. Students help to demonstrate extreme deer damage to corn. Photo - Joseph Paulin.

The stalks in the cornfield we pass, that should be overhead, have been eaten down to a few feet from the ground, sometimes lower (**Fig.6**). This damage opens the ground to sunlight, allowing weeds to grow taller, and eventually take over much of the field (**Fig.7**).

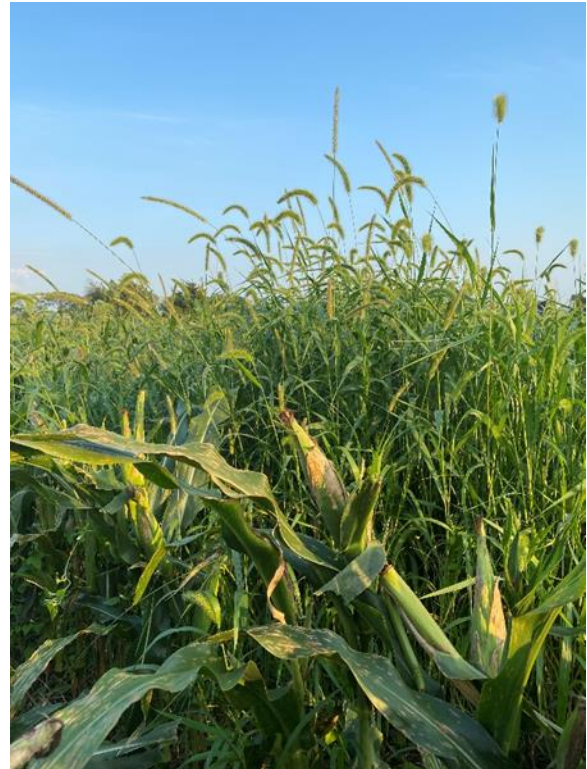


Figure 6. Weeds overtaking a cornfield as a result of deer damage. Photo - Joseph Paulin.

“Most people probably don’t think about financial losses to farms because they see green fields when driving down the road. People don’t realize when they’re looking at damage and how much of the crop has been eaten by the deer.”

- Case Study Farmer

We see a nice green, knee-high, soybean field, not knowing that it would be waist-high if the deer weren’t continuously eating the tops of the plants (**Fig.8**). Or another field that had been thriving only weeks before, now grazed to the ground by deer. Imagine the emotional toll that it takes.



Figure 7. Deer damage to soybeans. Photo - Geoff Slifer.

“What I tell nonfarmers – if you want us here, we can’t be here with all the deer. Imagine taking 10 to 15% of gross income every year and feeding it to the deer. Some farmers lose as much as 40% per year. A lot of us are disappearing.”

– Case Study Farmer

When we visit a tree nursery, we notice that the bark on several of the trunks is damaged (Fig.9).



Figure 8. Buck rub. Photo - Timothy J. Waller.

Some of the Fraser Firs appear to be damaged at the Christmas tree farm we visit during the holidays. A buck had been rubbing their antlers on them (Fig.10).

“It used to get kind of depressing. A few weeks before Christmas bucks would come in rubbing right before you were about to sell the trees. That’s a loss of \$35,000 per year.”

– Case Study Farmer



Figure 9. Antlered buck. Photo - Joseph Paulin.

Try thinking of it like this - after working around the clock for months, investing all your time, energy, and money into your job or business, someone just takes 10-25% of your paycheck. You don’t make any profit that year. You’re tired, frustrated, depressed, and just don’t know if the thing you have loved doing your whole life, is worth doing anymore at all. These are just some of the ways that white-tailed deer are impacting our farmers’ lives in New Jersey.

“There’s not a field I farm where there’s not deer damage. I’m starting to give up.”

– Case Study Farmer