

Results from the 2012 Quail Action Plan Landowner Survey

By

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Abstract: A survey was conducted in the winter of 2012 to determine the current practices and preferences of New Jersey landowners. Landowners were chosen from three southern counties that remain primarily rural, agricultural areas. Five hundred eighty-one mail questionnaire surveys were sent to landowners that received a Farmer Deer Shotgun Permit. Completed surveys were returned from 219 respondents for an adjusted response rate of 37.7%. The average parcel size was 103 acres. Landowners had been farming/managing their land for an average of 24 years and 82% said that they had their primary residence on their land parcel. Sixty-six percent of these parcels contained hardwood forests, 63% contained row crops, 49% had pasture/hay, 47% contained at least some wetlands and 22% contained pine forests. Sixty-five percent of landowners indicated some level of interest in managing for quail on their property and only 13% indicated low or no interest in managing for quail. Seventy-two percent of landowners said they actively manage for wildlife on their property. The most common type of wildlife management was food plots (85%), followed by 66% for field borders and hedgerows, 17% for pine thinning, livestock fencing and fallow cropping, 15% for rotational disking and 5% for prescribed burning. Landowners considered 42% of their land cover for wildlife. Only 16% of landowners indicated that they received financial assistance through government programs. Fifty-nine percent of landowners said they were interested in providing habitat for quail on their land. However, only 20% of landowners indicated that they were willing to convert some of their land into quail habitat; an additional 39% said maybe/unsure and 41% said they would not convert their land into quail habitat.

Introduction

In January 2012, 584 landowners in 3 New Jersey counties were mailed a Quail Action Plan Landowner Survey. The survey was developed in 2008 by the Virginia Department of Game and Inland Fisheries as a tool for measuring the success of technical assistance programs offered by federal or state agencies, and was modified for use in New Jersey. The Goal of the New Jersey Northern Bobwhite Action Plan is to restore bobwhite populations to the average 1979-81 level as measured by the USGS North American Breeding Bird Survey (BBS) through the following five Actions: 1) Identify and educate stakeholders in the development and implementation of the Plan; 2) Identify, connect, improve and increase habitat areas suitable for bobwhite; 3) Maintain and improve population surveys and associated databases necessary to assess the population status of bobwhite; 4) Conduct research to improve agency understanding of bobwhite, their population dynamics and their relationship with habitat, the environment, and harvest; 5) Provide for human use consistent with the Plan. The mean number of bobwhite heard per BBS route during 1979-81 was 7.1 and the current 3-year average is 0.2 during 2008-10.

This survey was designed to better address Actions 1, 2 and 4. Results from this survey will help determine the direction of future quail management efforts. First, recipients were asked about the general characteristics of their parcel, current land uses, and wildlife management practices. They were asked about their participation in state and federal programs and which activities were cost-shared by these programs (or reasons for not participating in these programs). Finally, recipients were asked about their willingness to manage their land for quail, the types of assistance they would require to provide quail habitat and the role of financial incentives.

The three counties chosen (Cumberland, Gloucester and Salem counties in southern NJ) were selected because they remain primarily rural, agricultural areas. This area is believed to contain the best remaining quail habitat in the State. Recipients were selected from the NJ Division of Fish & Wildlife's Farmer Deer Shotgun Permit database as these individuals were believed to have a vested interest in sport hunting, in addition to controlling land for potential habitat work. A total of 219 completed, usable surveys were returned; 4 surveys were unusable for a variety of reasons including: bad address or landowner was now deceased. Thus, a total 581 surveys were sent for an adjusted response rate of 37.7%.

Results

The average size of the parcels owned by landowners who responded to this survey was 103.1 acres and the median size was 50 acres (Q2). The average age of the responding landowner was 55.6 years (Q1) and had been farming/managing their land for an average of 24.4 years (Q5). Eighty-two percent of landowners said their parcel was also their primary residence (Q6) and 25.1% of parcels were enrolled in the State's Farmland Preservation Program (Q4). Nearly two-thirds (64.4%) of respondents said they farmed the land themselves, 26% leased their farm to another farmer and 9.6% said a family member farms their land (Q7). Landowners were asked to indicate which types of land they owned (landowners were asked to check all that apply, thus percentages will add up to more than 100%). Sixty-six percent

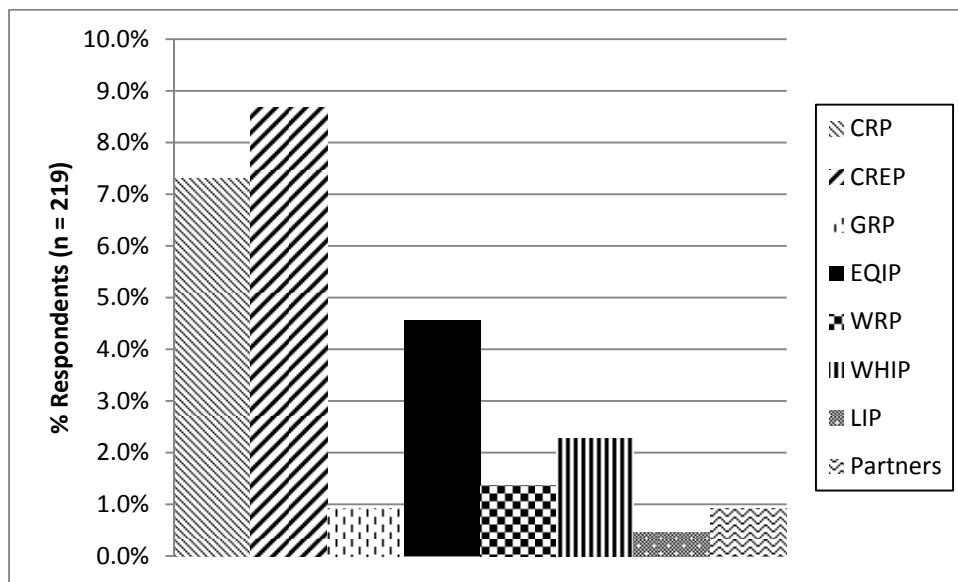
said their land was forested with hardwoods, 63% was row crops, 49% was pasture/hay, 47% was wetlands or ponds, and 22% was forested with pine trees (Q8).

In Question 9, landowners were asked about their interest in managing for different species of wildlife on their property on a seven-point Likert scale (0=Not at all interested, 3=Neither Interested or Uninterested, 6=Extremely Interested). Complete results from this question are available in Appendix B. Sixty-five percent of landowners indicated some level of interest in managing for quail on their property and only 13% indicated low or no interest in managing for quail. Among the other species landowners were asked about managing for in Question 9, 78% were interested in deer; 69% were interested in turkey; 63% were interested in rabbits; and 42% were interested in waterfowl. Seventy-two percent of landowners said they actively manage for wildlife on their property (Q10). Among those who indicated that they actively manage for wildlife, they were asked which types of management they do (Q10a). Food plots were the most common types of management (85%), followed by 66% for field borders and hedge rows, 22% for maintaining wildlife nest structures, 17% each for pine thinning, livestock fencing and fallow cropping, and 15% for rotational disking.

According to responding landowners (Q11), an average of 42.4% of their land could be considered wildlife cover. The most common type of wildlife cover (Q11a) was mature hardwood/mixed pine hardwood forests (83%), followed by wetland (55%), food plots (53%), brushy/weedy field for rabbit and quail (52%), pasture hay (38%), warm season grass (24%), and young forest (13%).

Three percent of landowners said they lease their land for hunting (Q12) and 95% said they allowed free hunting on their property (Q13). Only 16% of landowners indicated that they received financial assistance through government programs (Q14). Among those who participated in these programs, 56% participated in CREP, 29% enrolled in EQIP, 15% participated in CRP and 15% enrolled in WHIP. Total participation in these state and federal programs by all landowners can be found in Table 1.

Table 1. NJ Landowner Participation in State and Federal Wildlife Incentive Programs



Those landowners who did not participate in government financial programs were asked why they did not opt to pursue cost share (Q14b). Thirty-nine percent indicated that they need the land for agricultural production, 30% said it was too complicated to apply, 27% said there wasn't enough financial incentive, 25% did not want a long-term contract, and 33% indicated there were other reasons.

When asked if any of these programs provide wildlife assistance (Q15), 58% of those who answered Yes to Question 14 answered Yes to Question 15. Those who answered yes were asked which wildlife practices were being cost-shared and 53% said warm season grass, 42% said riparian buffers (CREP), 16% said idle crop lands and 5% said fencing streams.

Next, landowners were asked how much importance they placed on different management goals for their property (Q16) on a seven-point Likert scale (0=Not at all important, 3=Neither Important or Unimportant, 6=Extremely Important). Complete results for Question 12 are available in Appendix B. Seventy-six percent of responding landowners indicated that agricultural income was important, 28% said forestry income, 55% said investment, 82% said game wildlife species, and 51% said non-game wildlife species.

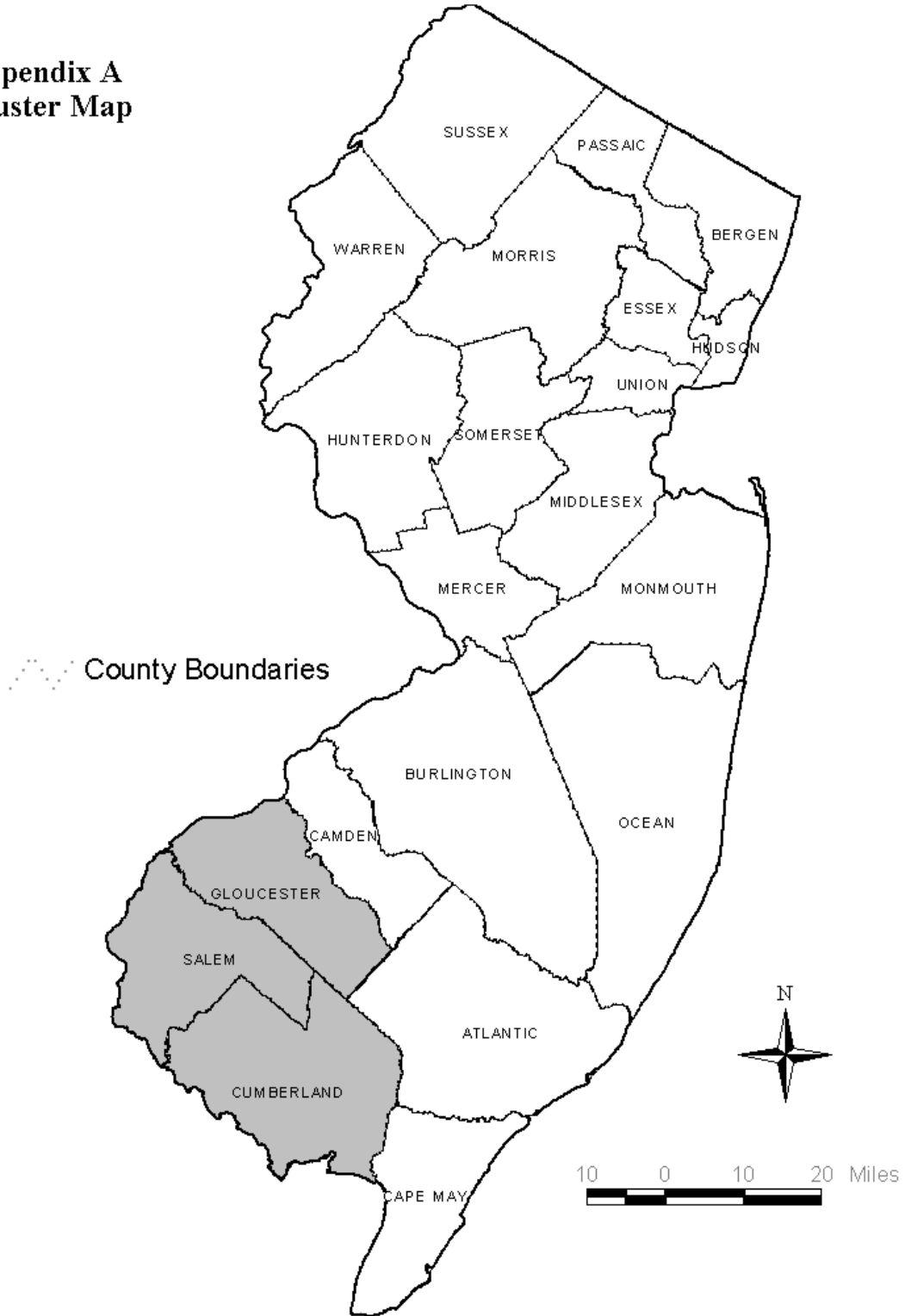
Landowners were next asked if they were specifically interested in providing habitat for quail on their land (Q17) and 59% said they were interested. For those who indicated interest, they were asked how important different types of assistance would be for providing quail habitat on a seven-point Likert scale (0=Not at all important, 3=Neither Important or Unimportant, 6=Extremely Important). Complete results for Question 17 are available in Appendix B. Sixty-six percent of the interested landowners said that on-site technical assistance from a wildlife biologist was important, 71% thought that quail management literature was important, 66% indicated that a quail management video was important, 80% said that seed or plantings were important, 70% wanted a written plan, 59% thought equipment was important, 75% were interested in cost-share incentives, 33% indicated that labor/contractors were important, and 61% said that time was important.

Finally, landowners were asked if they were willing to convert some of their land into quail habitat (Q18). Only 20% of landowners said Yes to this question, an additional 39% said maybe/unsure and 41% said no. Among landowners who answered yes, 40% said they would convert their land without any incentives.

Acknowledgements

The author would like to express appreciation to the Virginia Department of Game and Inland Fisheries who designed the original survey. Additionally, the dedication of Brynn Reilley was critical to the completion of this project.

Appendix A Cluster Map





Appendix B

2012 Landowner Questionnaire

1. What is your age? **Mean = 55.6 ± 0.9 SE**

2. How many acres of land do you own? **Mean = 103.1 ± 11.7 SE ac.** **Median = 50 ac.**

If you own more than one parcel of land, please answer the following questions about the largest parcel of property you own.

2a. In which New Jersey county is this parcel located? _____

3. Is this parcel at least 5 acres and actively devoted to an agricultural or horticultural pursuit for the last two years immediately preceding this tax year with a minimum gross income of \$500 for the first 5 acres and \$5 per acre for additional acres (i.e., you qualify for tax assessment reduction)?

Yes **97.2%**

No **2.8%**

4. Is this parcel enrolled in the State's Farmland Preservation Program?

Yes **25.1%**

No **74.9%**

5. How long have you been farming / managing your land? **Mean = 24.4 ± 1.2 SE years**

6. Is this parcel your primary residence?

Yes **82.4%**

No **17.6%**

7. How many acres of this parcel are agricultural? **Mean = 57.9 ± 6.5 SE ac.** **Median = 25.3 ac.**

If you own agricultural land, who farms the land?

I farm the land **64.4%**

Family members farm the land **9.6%**

I lease the land to a farmer **26.0%**

8. Which types of land do you own? (Please check all that apply)

- | | | |
|--------------------------|--------------------------|--------------|
| <input type="checkbox"/> | Pasture/hay | 49.5% |
| <input type="checkbox"/> | Row crops | 63.1% |
| <input type="checkbox"/> | Forested with pine trees | 22.0% |
| <input type="checkbox"/> | Wetlands/Ponds | 46.7% |
| <input type="checkbox"/> | Forested with hardwoods | 66.4% |

9. Please indicate your level of interest in managing each of the following species on your property:

	Not at all Interested		Neither Interested nor uninterested			Extremely Interested	
a. Quail	8.9	3.9	4.9	16.7	11.8	10.3	43.3
b. Deer	9.2	2.4	1.9	8.2	10.1	10.6	57.5
c. Turkey	13.9	5.4	2.0	9.4	8.9	11.4	49.0
d. Rabbit	12.0	3.5	6.0	16.0	14.5	14.0	34.0
e. Waterfowl	28.3	9.6	3.7	16.6	10.7	5.3	25.7

10. Do you actively manage for wildlife on your property?

- | | | |
|--------------------------|-----|--------------|
| <input type="checkbox"/> | Yes | 71.7% |
| <input type="checkbox"/> | No | 28.3% |

10a. If **Yes**, what types of management do you do? (Check all that apply)

- | | | |
|--------------------------|---|--------------|
| <input type="checkbox"/> | Food plots | 84.9% |
| <input type="checkbox"/> | Field borders and hedgerows | 66.4% |
| <input type="checkbox"/> | Understory burning | 5.3% |
| <input type="checkbox"/> | Rotation disking | 15.1% |
| <input type="checkbox"/> | Pine thinning | 17.1% |
| <input type="checkbox"/> | Fencing livestock out of streams/woodlots | 17.1% |
| <input type="checkbox"/> | Fallow cropping/idle land management techniques | 17.1% |
| <input type="checkbox"/> | Maintenance of wildlife nest structures | 21.7% |

11. What percentage of your land would you consider wildlife cover? Mean = 42.4%

11a. What type of cover do you have? (Check all that apply)

<input type="checkbox"/>	Brushy/weedy field for rabbits and quail	52.4%
<input type="checkbox"/>	Mature hardwood/mixed pine hardwood forests	82.9%
<input type="checkbox"/>	Young forests (including newly planted pines)	13.3%
<input type="checkbox"/>	Food plots	52.9%
<input type="checkbox"/>	Warm season grasses	24.3%
<input type="checkbox"/>	Pasture hay	37.6%
<input type="checkbox"/>	Wetland	54.8%
<input type="checkbox"/>	Other (please describe)	8.6%

12. Do you lease your land for hunting?

<input type="checkbox"/>	Yes	2.8%
<input type="checkbox"/>	No	97.2%

13. Do you hunt or allow hunting on your property? (without charging a fee)

<input type="checkbox"/>	Yes	94.8%
<input type="checkbox"/>	No	5.2%

14. Do you receive financial assistance through any state or federal programs?

<input type="checkbox"/>	Yes	15.9%
<input type="checkbox"/>	No	84.1%

14a. If **Yes**, which programs do you participate in? (Check all that apply)

<input type="checkbox"/>	Conservation Reserve Program (CRP)	14.7%			
<input type="checkbox"/>	CP33 Field Buffer	26.5%	<input type="checkbox"/>	CP38 SAFE	5.9%
<input type="checkbox"/>	Conservation Reserve Enhancement Program (CREP)	55.9%			
<input type="checkbox"/>	Grassland Reserve Program (GRP)	5.9%			
<input type="checkbox"/>	Environmental Quality Incentive Program (EQIP)	29.4%			
<input type="checkbox"/>	Wetland Reserve Program (WRP)	8.8%			
<input type="checkbox"/>	Wildlife Habitat Incentive Program (WHIP)	14.7%			
<input type="checkbox"/>	Landowner Incentive Program (LIP)	2.9%			
<input type="checkbox"/>	Partners for Fish and Wildlife	5.9%			

14b. If **No**, why did you opt not to pursue cost share? (Check all that apply)

- | | | |
|--------------------------|---|--------------|
| <input type="checkbox"/> | Too complicated to apply | 29.7% |
| <input type="checkbox"/> | Don't want long-term contract | 24.6% |
| <input type="checkbox"/> | Not enough financial incentive | 26.9% |
| <input type="checkbox"/> | Need the land for agricultural production | 39.4% |
| <input type="checkbox"/> | Other (please specify) | 33.1% |

15. Do any of the programs provide assistance to incorporate wildlife management on your property?
(Check only if answered Yes to Question 14)

- | | | |
|--------------------------|-----|--------------|
| <input type="checkbox"/> | Yes | 57.6% |
| <input type="checkbox"/> | No | 42.4% |

15a. If **Yes**, what wildlife practices are being cost-shared? (Check all that apply)

- | | | |
|--------------------------|-----------------------------|--------------|
| <input type="checkbox"/> | Riparian buffers (CREP) | 42.1% |
| <input type="checkbox"/> | Fencing streams | 5.3% |
| <input type="checkbox"/> | Field borders and hedgerows | 31.6% |
| <input type="checkbox"/> | Understory burning | 0.0% |
| <input type="checkbox"/> | Idle crop lands | 15.8% |
| <input type="checkbox"/> | Warm season grasses | 52.6% |

16. Please indicate the level of importance for each of the following management goals for your land:

	Not at all Important		Neither Important nor unimportant			Extremely Important	
a. Agricultural income	5.9	3.9	5.9	8.4	8.9	8.9	58.1
b. Forestry income	38.1	13.1	9.1	11.4	9.1	6.8	12.5
c. Investment	17.0	4.7	5.8	17.5	12.3	10.5	32.2
d. Game wildlife species	5.5	1.5	4.5	7.0	9.0	19.4	53.2
e. Non-game wildlife species	17.8	8.3	7.2	15.6	11.7	11.1	28.3

17. Are you specifically interested in providing habitat for QUAIL on your land?

- | | | |
|--------------------------|-----|--------------|
| <input type="checkbox"/> | Yes | 58.8% |
| <input type="checkbox"/> | No | 41.2% |

17a. If **Yes**, please indicate the level of importance you place on each of the following for providing quail habitat on your property:

	Not at all Important		Neither Important nor unimportant			Extremely Important	
a. On-site technical assistance from wildlife biologists	5.7	2.8	8.5	17.0	13.2	17.9	34.9
b. Quail management literature	1.9	3.8	1.9	21.7	20.8	12.3	37.7
c. Quail management video	5.8	4.9	6.8	16.5	15.5	14.6	35.9
d. Seed or plantings	4.5	2.7	2.7	10.0	16.4	22.7	40.9
e. Written management plan from a wildlife biologist	1.9	7.6	6.7	13.3	15.2	23.8	31.4
f. Equipment	10.4	10.4	6.3	13.5	11.5	16.7	31.3
g. Cost-share incentives	8.5	6.6	2.8	7.5	11.3	17.9	45.3
h. Labor / contractors	25.0	15.9	10.2	15.9	5.7	9.1	18.2
i. Time	8.2	10.3	2.1	18.6	14.4	12.4	34.0

18. To have quail on your land would you be willing to convert pasture, hay, row crops into quail habitat?

- Yes **19.7%**
- No **41.4%**
- Maybe / Unsure **38.9%**

18a. If **Yes**, please indicate if you require financial incentives to provide quail habitat on your property:

- I am willing to provide quail habitat without any financial incentives **40.0%**
- I am willing to provide quail habitat with financial incentives **60.0%**

The survey is now complete. Please use the self-addressed stamped envelope provided to return the survey. The NJ Division of Fish & Wildlife realizes your time is valuable, and thank you for taking the time to answer these questions!

Appendix C

Comparison Between New Jersey and Virginia Surveys

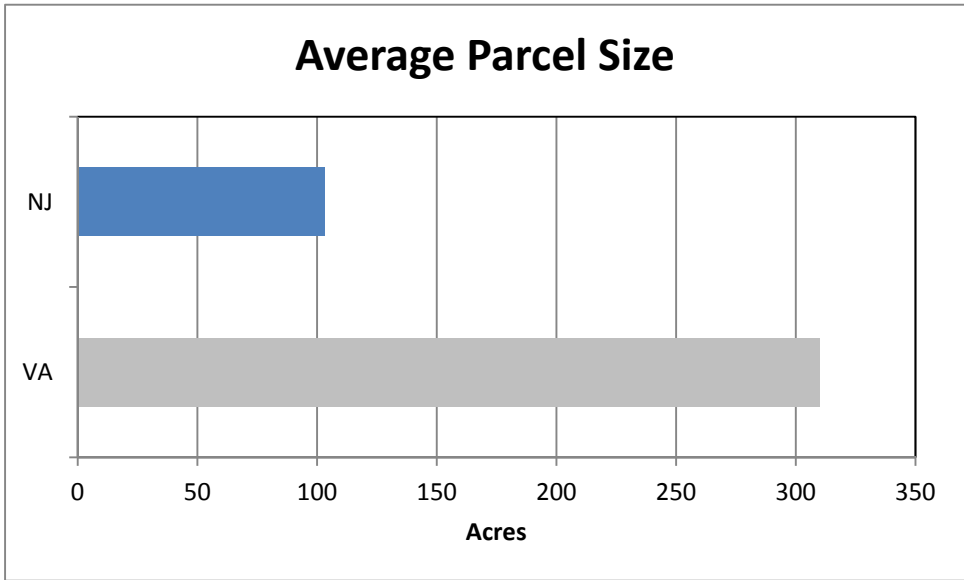
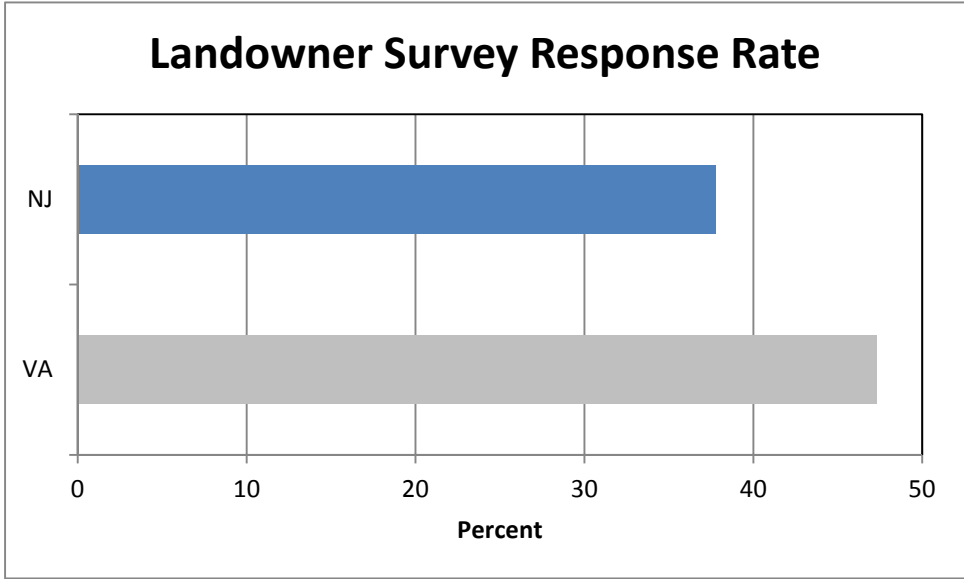
The 2012 New Jersey Landowner Survey was nearly identical to the 2008 Virginia Survey and thus allows for comparison of landowner practices and preferences between the two states. Survey response rate was likely higher in Virginia (47.3%) than in New Jersey (37.7%) due to Virginia's second mailing effort to landowners that had not responded to the first mailing. Landowners in New Jersey were somewhat younger (55.6 years) than in Virginia (59.5 years), had been managing their parcel somewhat longer (24.4 years in NJ vs. 21.9 years in VA), and were less likely to lease their land to another farmer (26.0% in NJ vs. 50.0% in VA). The average land parcel size in Virginia (310 ac) is three times the average land parcel size in New Jersey (103 ac) as Virginia did not send surveys to landowners possessing less than 50 acres. Nearly twice as many New Jersey landowners kept their primary residence on their parcel (82.4%) than landowners in Virginia (43.0%).

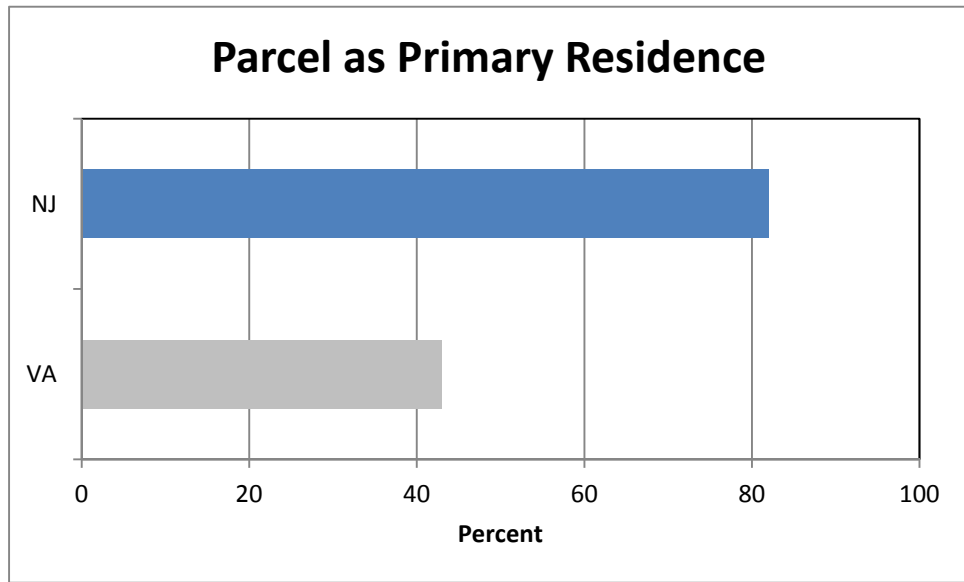
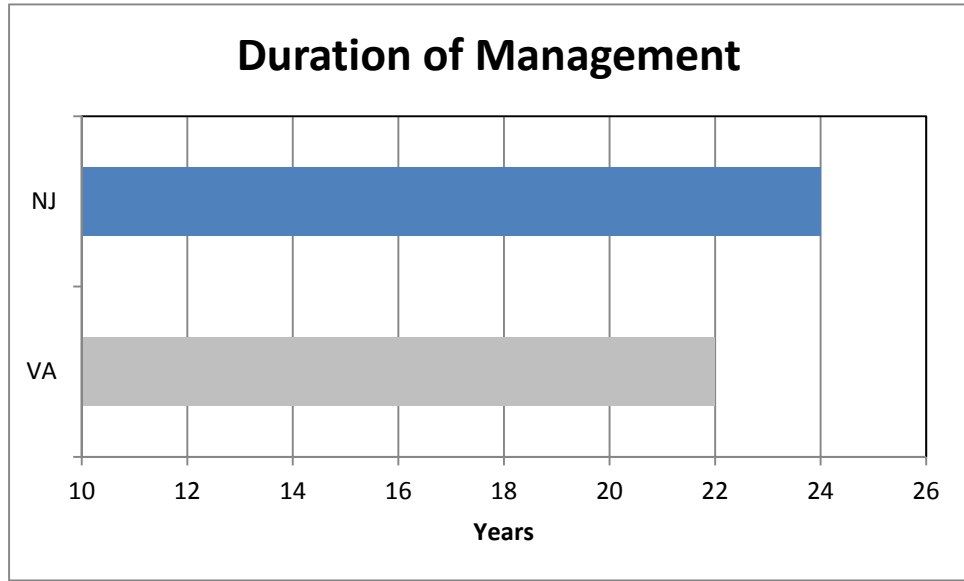
Parcel land types were similar in both states except New Jersey had a higher percentage of row crops (63.1%) than Virginia (35.3%) but a lower percentage of pine forests (22.0%) than Virginia (66.1%). Percent of parcel considered as wildlife cover was similar in both states (42.4% in NJ vs. 48.3% in VA), but active wildlife management was nearly twice as high in New Jersey (71.7%) than in Virginia (38.3%). Food plots and field borders/hedgerows were the most common management practices used in both states (84.9% and 66.4% in NJ vs. 72.1% and 44.9% in VA, respectively), while prescribed fire was the least common practice (5.3% in NJ vs. 8.8% in VA).

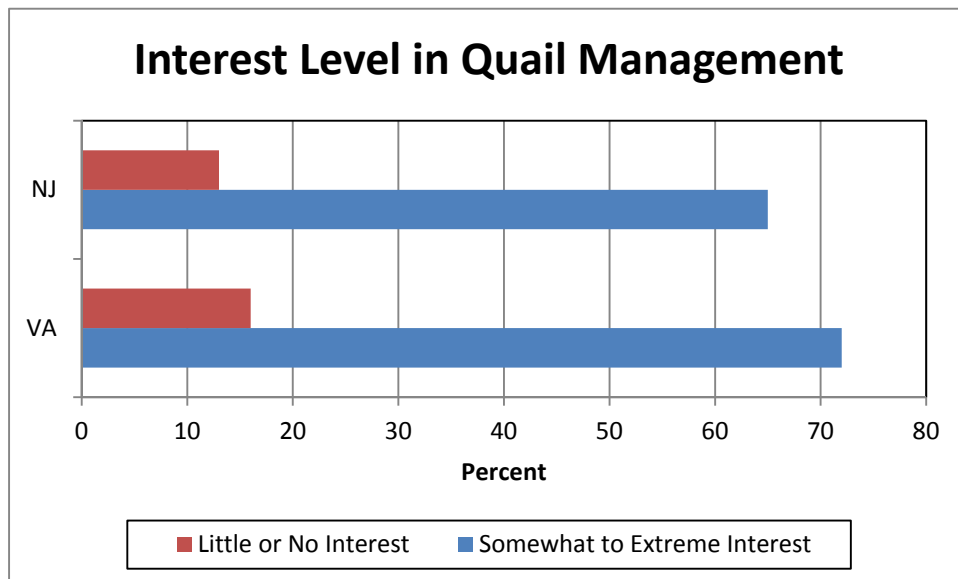
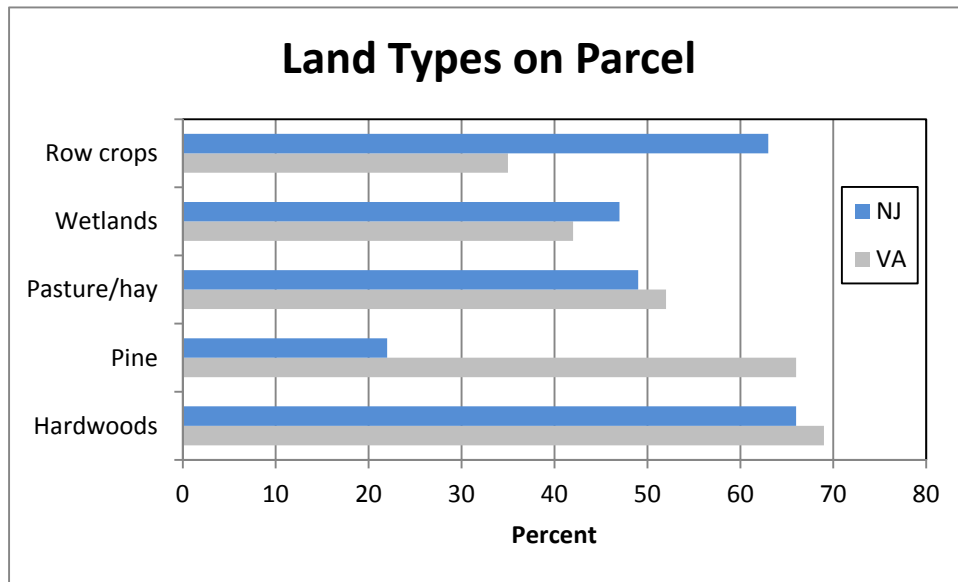
New Jersey landowners were less likely to lease their land for fee hunting (2.8%) than those in Virginia (16.8%), but were more likely to permit hunting without charge (94.8%) than those in Virginia (73.2%).

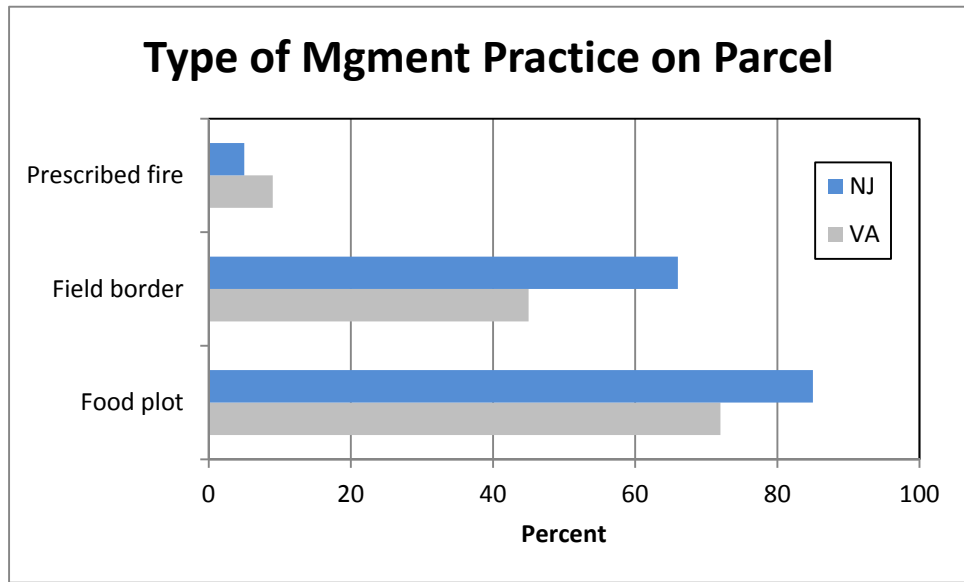
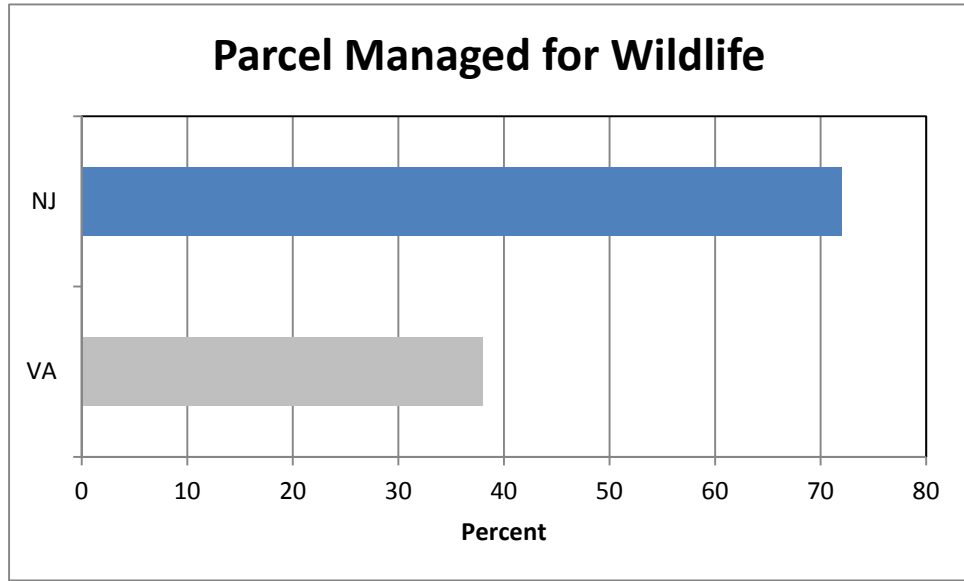
Financial assistance from state/federal programs is not prevalent in either state (15.9% in NJ vs. 16.2% in VA). Enrollment in Conservation Reserve Enhancement Programs (CREP) was higher in New Jersey (55.9%) than in Virginia (31.3%), but enrollment in Conservation Reserve Programs (CRP) was lower (14.7% vs. 33.9%). Enrollment in Environmental Quality Incentive Programs (EQIP) and Wildlife Habitat Incentive Programs (WHIP) were similar in both states (29.4% and 14.7% in NJ vs. 20.7% and 9.8% in VA, respectively). Landowners in both states that did not pursue cost-sharing thought the application process was too complicated (29.7% in NJ vs. 22.0% in VA), didn't want a long-term contract (24.6% in NJ vs. 21.6% in VA), needed more financial incentive (26.9% in NJ vs. 19.8% in VA) and/or needed the land for agricultural production (39.4% in NJ vs. 17.7% in VA).

Landowners in both states were equally interested in providing quail habitat on their parcel (58.8% in NJ vs. 55.8% in VA). New Jersey landowners expressed a slightly higher willingness to convert production land into quail habitat (19.7%) than those in Virginia (16.0%), and 40% of respondents in both states so willing indicated they would do so without financial incentives.

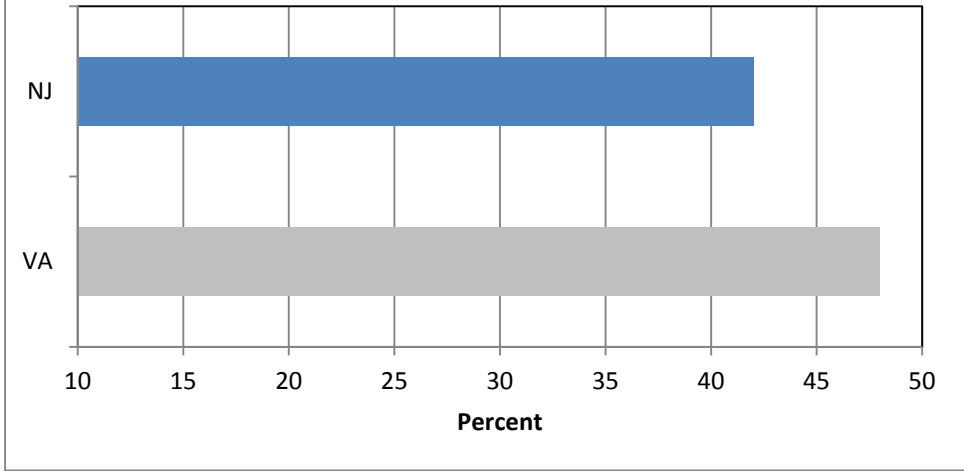








Percent of Parcel as Wildlife Cover



Financial Assistance Received

