

Pheasant News and Notes

December 2021



Trivia Question

Pure Pheasant, an offshoot of Macfarlane’s Pheasant Farm in Wisconsin, recently announced a new line of dog chews. What specifically are they made of?

Farm Bill and USDA News

FSA released their October CRP report, which reflects the total acreage changes following the 2021 signups (i.e., new contracts starting in FY2022) and FY2021 contract expirations. Those results are below, compared with the (pre-expiration) FY2021 enrollments as of the end of September.

Signup	CRP Acres Enrolled			Total Rent Payments (\$M)			Rent Payment Per Acre		
	FY2021	FY2022	% chg	FY2021	FY2022	% chg	FY2021	FY2022	% chg
General	11,145,708	10,265,314	-7.9	\$605	\$572	-5.5	\$54.29	\$55.72	2.6
Continuous	7,561,630	7,944,482	5.1	\$1,084	\$1,147	5.8	\$143.28	\$144.37	0.8
Grasslands	1,805,884	4,066,902	125.2	\$23	\$62	169.6	\$12.85	\$15.31	19.1
Total CRP	20,513,222	22,276,699	8.6	\$1,712	\$1,781	4.0	\$83.36	\$79.96	-4.1

We lost about a half million acres of General and Continuous contracts (-2.7%) between this fiscal year and last, whereas Grasslands acres more than doubled. Nine states now have more than 100,000 acres of Grasslands contracts, up from four states last year. Of those nine, six (CO, NE, NM, OK, SD, and WY) now have at least 33% of their total CRP acres as Grasslands enrollments – Nebraska “leads” this category with 59%.

About 82% of the General and Continuous acreage losses were in the 24 primary pheasant range states detailed in the National Plan, meaning we will potentially lose around 400,000 CRP acre equivalents (CAEs; see page 32 in the National Plan for definition) in the pheasant range in the coming year. This represents about 1% of the rangewide pheasant production capacity as calculated in the National Plan for 2015-2019.

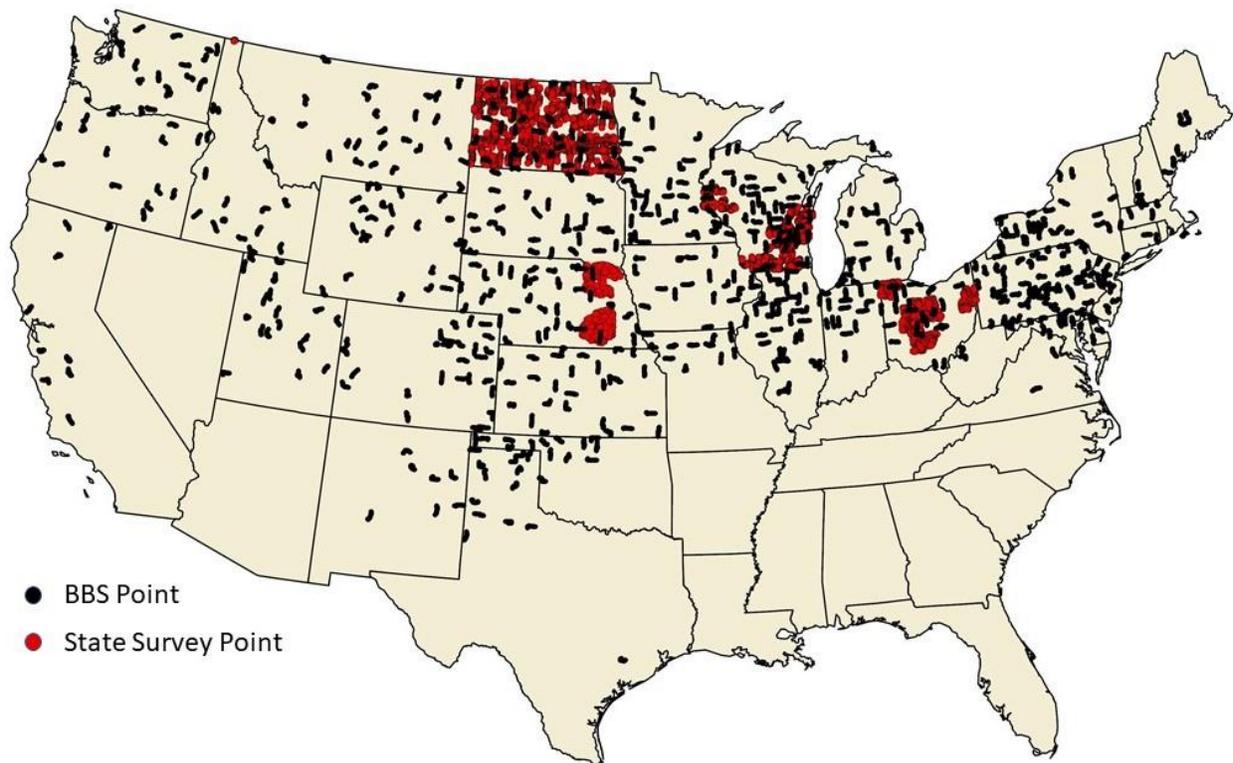
Grasslands CRP enrollments can partially offset these losses, but only they enrolled 1) expiring General or Continuous acres, or 2) current pasture or hayland that will be subsequently managed to produce more vegetative structure and less disturbance during the pheasant nesting season. These offsets are probably marginal – based on the literature, converting “traditional” CRP to pasture or hay under a Grasslands contract reduces its pheasant productivity potential by more than 70%.

On the brighter side, SAFE enrollments gained 227,000 acres, and CP1 enrollments (introduced grasses) fell 87,000 acres.

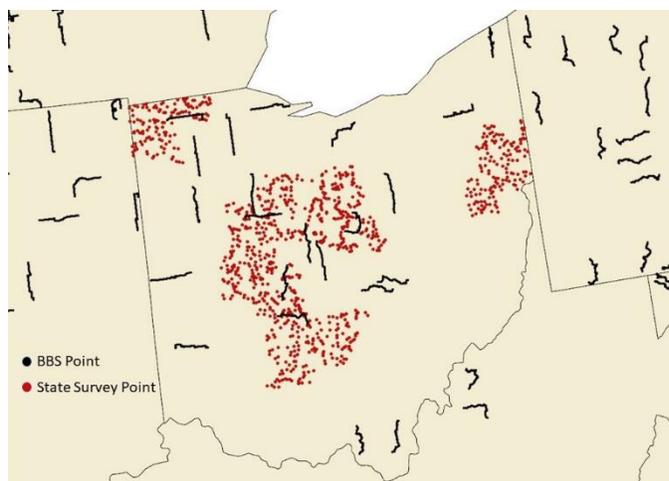
Notes from Around the Pheasant Range

This month I requested all the pheasant crow-count data the states have collected as part of their own population monitoring and research work. These data, along with the North American Breeding Bird Survey (BBS) dataset, will likely form the foundation our future habitat modeling. We may also be able to use route-based brood count surveys, but those are less amenable to site-level (one square mile or less) abundance estimates, depending on how the individual bird observations are recorded and archived. We will cross that bridge once we get the point counts settled.

The degree to which we can “settle” the point counts remains to be seen. I have cataloged over 800,000 individual counts so far – most of which are from the BBS, but nearly 80,000 from the states, as well.



A little closer look at Ohio's points, for example.



The protocols under which the data were collected vary (Table 1), with most counts being part of route-based surveys designed to reveal population trends over time rather than actual estimates of abundance or density. We will need to account for variation in counting time, time of day, day of year, serial and spatial autocorrelation, and perhaps latitude and/or longitude when we analyze how the counts vary with habitat at both the landscape and local scales. This may mean paring down the counts used in modeling to just those meeting certain conditions.

Table 1. Standard protocols of pheasant call-count surveys (aural point counts with spatial coordinates).

Survey	Years of Data	Raw point counts in data set	Points on routes?	Count period	Counts/point/year	Count duration (mins)	Observations recorded	Start relative to sunrise (mins)	Maximum end time	Noise variable(s) recorded
NABBS	1997-2019	771,650 (on routes with >0 pheasants detected)	Yes	"Early to mid June" for most routes	1	3	Pheasants detected within 400 m	-30	None (most routes take 4-4.5 hours)	Yes
ND (Annual)	1987-2021	54,979	Yes	1 May-10 Jun	3	2	Pheasant crows heard	-30	None (target is 1 hour from start)	No
WI (Annual)	2013-2021	9,960	Yes	5-30 Apr	1	6 (4, 1.5 min intervals)	Crowing males heard by interval & location of males heard	-45	None	Yes
NE (UNL Project)	2021	1,341	No	1 Apr-31 May	2	3	Pheasant crows heard	-45	9:00 AM	Yes
OH (Annual)	2001-2019	12,497	No	17 Apr-5 May	1	3	Pheasants detected & detection times	-40	None	Yes
ID (2 WMAs)	2006-2021	472	Yes	17 Apr-19 May	2	?	Crowing males heard	?	?	No

Dealing with the survey variations will be a challenge, but individual datasets can be used to address certain issues that may apply generally. For example, Wisconsin's interval and distance data can be used to estimate detection probabilities and effective sampling areas, whereas the North Dakota and Nebraska data can potentially be used to explore latitude-dependent day-of-year effects. We can see how much these estimates, as well as those already published, help improve our predictive ability in the "final" model(s). Also, more data from Kansas, Oklahoma, and perhaps Washington are on the way.

Ultimately, we would like to use these data (or similar data we collect in the future) to answer a few key questions:

- For any location within the pheasant range, given some standard survey conditions (time from sunrise, date, minutes of counting, etc.) and surrounding habitat (i.e., land cover) measurements, what is the probability of hearing at least one pheasant crowing? These point-specific probabilities can be used to estimate the minimum habitat conditions needed to sustain local populations within a given landscape.
- Given the same data inputs above, what are the probabilities of hearing any given number of pheasant crows (or pheasants crowing), and by extension, what is the most likely number to hear? These landscape-dependent probabilities can be used to estimate the change in local habitat most likely needed to produce incremental changes in counts.
- What is the distribution of spring call counts obtained from areas that provide good to excellent hunting? That is, what minimum or range of local spring counts should we aspire to if hunter satisfaction with bird numbers is our objective?

It seems these questions may be best addressed with some kind of Bayesian hierarchical model, so I have been studying that general topic. We will discuss how to approach the analyses at the upcoming Tech Committee meeting in Lubbock.

Finally, Casey Cardinal (Technical Committee, New Mexico) and her co-authors' have a [new paper](#) out on galliform population trends and legal status. Congrats, Casey!

Pheasant-relevant Media

[National Corn Growers Association forges new partnership with Pheasants Forever and Quail Forever Agencies work together to conserve Ohio's wild pheasant populations](#)

[Hunting Illinois' Steward Pheasant Habitat Area on opening day is the royal treatment](#)

[Pheasant hunting on Thanksgiving as traditional as pumpkin pie](#)

[Outdoor Life editor shares his 'reality check' on S.D. pheasant hunting](#)

[Pheasant season success variable across Nebraska](#)

[Seven new teams, 48 past shooters participate In 61st One Box Pheasant Hunt](#)

[Bob Gwizdz: Too-good pheasant habitat may create runners](#)

[Michigan pheasant hunters will be seeing more birds in state game areas](#)

[Salmonella outbreak forces reduced pheasant releases in northern Wyoming](#)

[The art of eating pheasant](#)

[Seven unique pheasant \(or chicken\) recipes from South Dakotans: Brats, Thai pizza, strips & more](#)

[Greens sue to block expanded hunting on wildlife refuges](#)

[CRP program aiding landowners and hunters](#)

[10 states where outdoor recreation generated the most money in 2020](#)

[Bipartisan infrastructure package secures major conservation investments](#)

Recent Literature

[Blomberg, E. J., B. E. Ross, C. J. Cardinal, S. N. Ellis-Felege, D. Gibson, A. P. Monroe, and P. K. Schwalenberg. 2021. Galliform exclusion from the Migratory Bird Treaty Act has produced an alternate conservation path, but no evidence for differences in population status. *Ornithological Applications* \(early online version\).](#)

[Picardi, S., P. Coates, J. Kolar, S. O'Neill, S. Mathews, and D. Dahlgren. 2021. Behavioural state-dependent habitat selection and implications for animal translocations. *Journal of Applied Ecology* \(early online version\).](#)

[Eraud, C., T. Devaux, A. Villers, F. A. Johnson, and C. Franceiaz. 2021. popharvest: An R package to assess the sustainability of harvesting regimes of bird populations. *Ecology and Evolution* \(early online version\).](#)

[Roy, C. L., M. Carstensen, K. LaSharr, C. Humpal, T. Dick, M. Kunkel, and N. M. Nemeth. 2021. West Nile Virus exposure and infection among hunter-harvested ruffed grouse cohorts in a stable population. *Journal of Wildlife Diseases* \(early online version\).](#)

Trivia Answer

[Raw frozen pheasant heads.](#) When I was a kid, my uncle used to toss the head of each properly retrieved quail to his dog; these were eagerly caught on the fly and gone after a few odd crunches. Based on that experience, I predict frozen pheasant heads will be a big hit with dogs, if not with crunch-averse dog owners.



This update is brought to you by the National Wild Pheasant Conservation Plan and Partnerships. Our mission is to foster science-based, socially-supported policies and programs that enhance wild pheasant populations, provide recreational opportunities to pheasant hunters, and support the economics and social values of communities. You can find us on the web at <http://nationalpheasantplan.org>.