

Pheasant News and Notes

August 2023



Trivia Question

Pheasant eggs come in a variety of colors, with four basic types being reported: dark brown, light brown, olive, and blue. Which are structurally stronger, those with bluish hues or brownish hues?

USDA and Legislative News

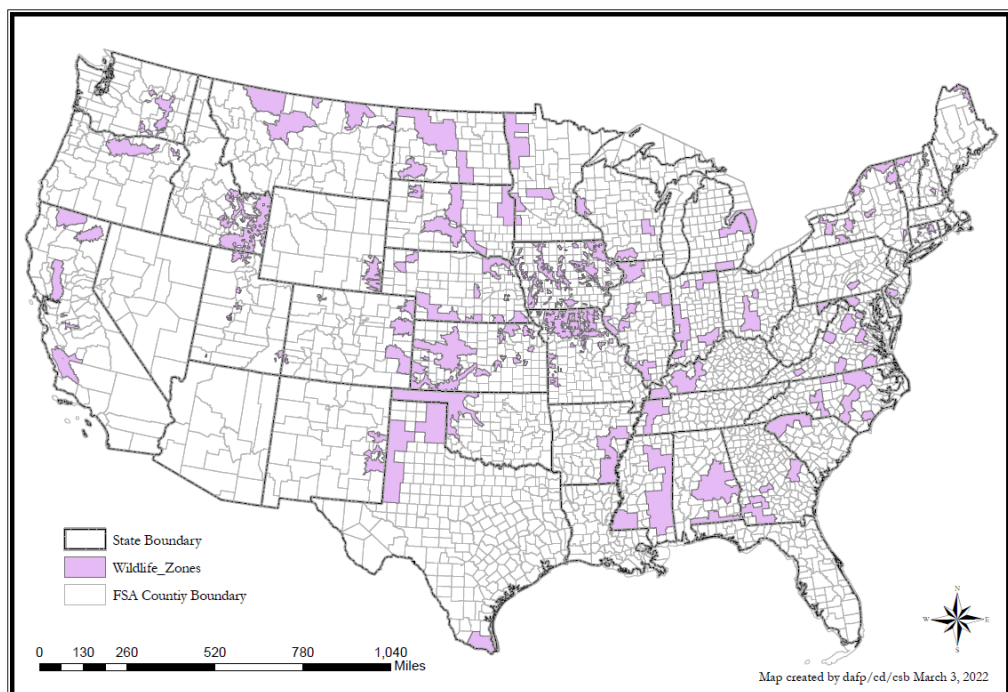
Political flag-planting continues regarding proposals for the “2023” Farm Bill. On a conference call with the Association of Fish and Wildlife Agency’s (AFWA’s) Agricultural Conservation Committee last week, Kalina Vatave of AFWA reported that prospects of getting a new bill over the finish line by the end of September (i.e., the end of FY2023) are dim, but reaching a deal before the end of the calendar year was still possible. We are still waiting on final Congressional Budget Office scores for the current bill’s funding levels – these will define the baseline for any proposed additions or subtractions to spending in the upcoming new bill. We also heard that introduction of a marker bill authorizing a more robust Voluntary Public Access and Habitat Improvement Program (VPA-HIP) has been held up until proponents find a Republican co-sponsor in the House.

Media reports suggest some House Republicans are again testing the waters for several major changes to CRP (Agri-Pulse has the [original article](#) behind a paywall, but you can see a short summary [here](#); thanks to Mark Norton of South Dakota Game, Fish and Parks, and Todd Bogenschutz of the Iowa DNR for forwarding it). Moving CRP from an acre-based program with a national acreage cap to a dollar-

limited one is not a new suggestion but pairing it with more state control over program administration is an interesting combination.

States currently have some control over program implementation, perhaps most importantly through the definition of State Wildlife Priority Zones.

State CRP Wildlife Zones (*F5a State Wildlife Priority Zones*)



Land offered for enrollment that falls within a priority zone receives a significant bump in its Environmental Benefits Index (EBI) score and has a greater chance of acceptance into the program.

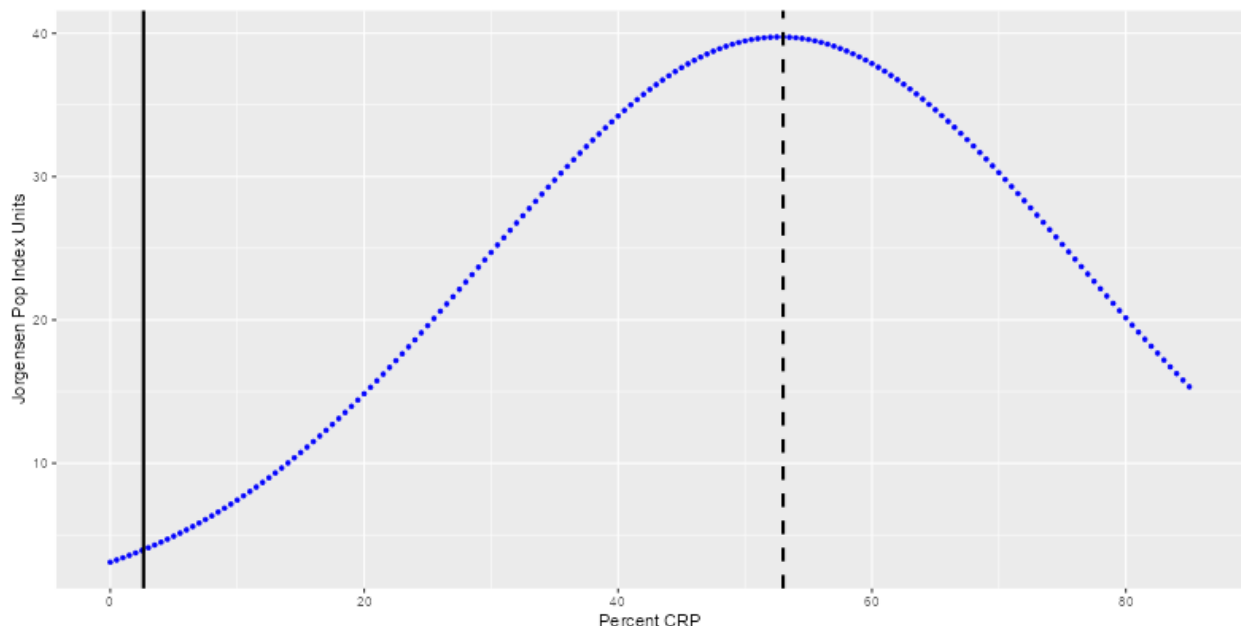
As the map above shows, states have taken different approaches to defining their priority zones (into big areas, small areas, or both) depending on the species they are trying to benefit, ease of administration, and no doubt other reasons. States can also create continuous State Acres for Wildlife Enhancement (SAFE) practices that are offered only in specific areas.

We can imagine all the ways more state (or county) control could go off the rails if “maximum cropland” interests captured the decision-making process, and it may be easier to cut funding in future farm bills for a dollar-based program. Even flat funding would result in fewer enrolled acres if long-term inflation in per-acre rental rates occurred.

But if we think that fewer acres are in our future regardless (and history seems to be pointing that direction for “traditional” CRP practices) it’s also worth thinking about what we could do with more control over the distribution of those acres, or at least some fraction of them.

Let’s imagine a point in Cedar County, Nebraska and look at the land cover within 5 km (3.1 miles) of that point, which encompasses about 19,400 acres. Let’s say the area currently consists of 3% CRP, 83% cropland, and 14% other cover types. When we use a modified version of [Jorgensen et al. \(2014\)’s](#) habitat model to assess this landscape composition, the model estimates a pheasant population index for its center point of 3.9. Now let’s start converting the area’s cropland into CRP in increments of 0.5% and re-running the model at each iteration until we run out of cropland to convert. We’ll assume all other cover types remain stable.

The figure below shows the results. The blue dotted line tracks the change in the predicted pheasant abundance index as we change the percent CRP, the black solid line shows the current percent CRP and index value, and the black dotted line shows where the maximum population index is achieved (39.7 index units at 53% CRP).



Cedar County offered an average general CRP rental rate of \$213/acre in 2022. Maximizing the pheasant population (a nearly 10-fold increase in birds from current levels) would take $19,400 \times 0.53 = 10,282$ CRP acres at a cost of about \$2,190,000 in rental payments. That sounds like a lot of money, and it is, but it represents only 2.6% of [Nebraska's current total CRP rental payments](#) of just over \$85 million.

Creating a 20,000-acre pheasant mecca is a lot easier on paper than in reality, but the exercise helps us start to think through the implications of acres-versus-control trade-offs among our policy options. It also raises all sorts of associated questions, like:

- NRCS directs 10% of its Environmental Quality Improvement Program (EQIP) funds to wildlife practices; could wildlife interests successfully ask to help direct 10% of a state's CRP budget?
- In most states, is it even possible to find a group of landowners willing to enroll 10,000 acres of CRP within a 20,000-acre area of potentially prime pheasant range? If not, what if we offered them, say, 1.5 times the normal rental rate? Would "maximum cropland" proponents derail any efforts to offer significantly-higher-than-market rental rates, even in relatively small focus areas?
- How abundant do pheasants need to be in a focus area to generate measurable economic gains for the local community (i.e., to draw hunters from metro areas and from out-of-state)? Is our 10-fold increase enough or is it overkill?
- How many quality hunter-days of use could each focus area provide, and how much additional investment in access payments would be needed to facilitate that level of hunting activity?
- How many focus areas of this size would be needed to meaningfully impact state-level hunter recruitment, retention, and reactivation?
- What other wildlife species would need to be considered when making CRP-related decisions, and how would those considerations affect pheasant-related outcomes?
- Last but not least, are the pheasant habitat models we are using to make these projections actually performing well? Do they accurately predict real population levels and changes over time?

The list could go on and on. Virtually none of those questions can be answered before this Farm Bill is negotiated, and likely not before several future bills are in the books, so firm conclusions about acres-versus-control trade-offs remain difficult. As always, we ask our conservation policy folks to advocate for the best provisions possible using imperfect and incomplete information, often within a very compressed time frame, and they do this difficult job very well. It is our partnership's job to make sure the relevant information pool gets more complete and accurate over time.

Notes from Around the Pheasant Range

August is roadside brood survey month for several states, followed quickly by the fall hunting forecast-writing and question-fielding season. Good luck to everyone with all the number-crunching and phone-answering.

Last month I took a quick trip to the Western Association of Fish and Wildlife Agencies (WAFWA) summer meeting in Santa Fe, NM, and gave a partnership update to the Wildlife Chiefs Committee. I wish I could report that mine was one of several small game-themed subjects on the agenda, but instead this group has their hands full with large carnivore management, threatened and endangered species issues, and the sometimes-fraught relationships with federal land management agencies. I felt lucky to slip in a little pheasant information as a palate-cleanser.

I also spent an afternoon in Lincoln with Nebraska Game and Parks staff and University of Nebraska faculty and students discussing their ongoing pheasant habitat research. Part of the project involves developing an informational website regarding pheasant ecology, history, and management, including story maps and a slider tool to show how land use (via aerial photos) has changed over the decades at selected locations. Additionally, one of the graduate students is tasked with developing a remote sensing technique to classify grassland structure and disturbance timing throughout the course of the nesting season, and a second is using these results and other habitat variables to predict local pheasant abundance. The students are using ground-truthed vegetation and crow-count measurements (including automated recording unit data) in their modeling. I shared how we are currently using published habitat models in our prototype decision support tool, so hopefully any new model they develop can be easily incorporated in its calculations. Thanks to Bryan O'Connor (Technical Committee, Nebraska) for organizing an interesting meeting.

Pheasant-relevant Media

[Iowa roadside pheasant count underway](#)

[Spring surveys show mixed results for Wisconsin ruffed grouse, pheasant and waterfowl](#)

[Michigan officials announce changes to pheasant, deer hunting season](#)

[Minnesota Governor Walz announces 2023 pheasant hunting opener to be held in Owatonna](#)

[Major CRP changes could be coming in the farm bill](#)

[Inside the fall farm bill sprint](#)

[Wyoming is expanding its sage grouse protections. Will it work?](#)

[Gene-edited sterile miscanthus – from pesky weed to biofuels resource](#)

[USDA unveils cutting-edge map that shows planted U.S. commodities](#)

[Farmers have bought into Biden's climate program. Now comes the hard part.](#)

Recent Literature

[Jones, L. R., H. L. Black, M. R. Boudreau, R. D. Bracken, and N. P. Johnston. 2023. Eggshell coloration is an indicator of dietary calcium in Common Pheasants \(*Phasianus colchicus*\). *Ibis* \(early online version\).](#)

[Davan, K. M., N. C. Poudyal, R. D. Applegate, and J. C. Feddersen. 2023. The effects of expectations, motivations, and constraints on small game hunters' seasonal satisfaction. *Wildlife Research* \(early online version\).](#)

[Hill, J. N., T. M. Terhune II, and J. A. Martin. 2023. Behavioral state-specific resource selection of northern bobwhite chicks. *Journal of Wildlife Management* \(early online version\).](#)

[Allen, S. E., M. R. Kunkel, and N. M. Nemeth. 2023. Using opportunistic samples to monitor West Nile Virus infection status in greater sage-grouse \(*Centrocercus urophasianus*\) in Wyoming, USA \(2020-22\). *Journal of Wildlife Diseases* \(early online version\).](#)

[Gonnerman, M., et al. 2023. Adaptive protocols identify sources of post-capture mortality in radio-marked wild turkeys. *Wildlife Research* \(early online version\).](#)

[Malmberg, J. L., M. Miller, J. Jennings-Gaines, and S. E. Allen. 2023. Mortality in wild turkey \(*Meleagris gallopavo*\) associated with natural infection with H5N1 Highly Pathogenic Avian Influenza \(HPAIV\) Subclade 2.3.4.4. Journal of Wildlife Diseases \(early online version\).](#)

[Bernath-Plaisted, J. S., et al. 2023. Review of conservation challenges and possible solutions for grassland birds of the North American Great Plains. Rangeland Ecology and Management 90:165-185.](#)

[Post van der Burg, M., C. Otto, and G. McDonald. 2023. Trending against the grain: Bird population responses to expanding energy portfolios in the US Northern Great Plains. Ecological Applications:e2904.](#)

[Perez-Granados, C. 2023. BirdNET: applications, performance, pitfalls and future opportunities. Ibis 165:1068-1075.](#)

[Araya-Salas, M., et al. 2023. ohun: An R package for diagnosing and optimizing automatic sound event detection. Methods in Ecology and Evolution \(early online version\).](#)

[Lim, XiaoZhi. 2023. Could the world go PFAS-free? Proposal to ban ‘forever chemicals’ fuels debate. Nature 620:24-27.](#)

Trivia Answer

According to [Krystianiak et al. \(2016\)](#), brownish eggs are stronger, at least for those laid in captivity. Although Krystianiak wrote that shell color was genetically determined, [a recent study](#) suggests dietary calcium can also affect color and hence structural integrity.

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 <https://nationalpheasantplan.org>.