Pheasant News and Notes July 2019



Trivia Question

In what text did the image at right appear, and what is the object around the pheasant's neck?

Farm Bill and USDA News

The <u>new signup</u> period for selected continuous CRP practices got underway on June 3rd and runs through August 23rd. While we are thankful for a new signup (especially the opportunity to extend most expiring contracts for a year), it has some glaring shortcomings: no signup or practice incentives ("SIPs and PIPs"); SAFE, CP33, and some other wildlife-centric practices are ineligible; and no cost share is being offered for mid-contract management, which is unprecedented. These are on top of the 90% soil rental rate payment cap specified in the new Farm Bill. Here in South Dakota, word has it that producers aren't exactly beating down USDA's door to sign up, but we'll get a clearer picture of demand across the pheasant range as the deadline draws closer.



This spring's flooding and continued wet weather will leave quite a few fields unplanted this year across the Midwest. Is there a silver lining in this development for pheasants? You'd think having some weedy idle land out there would be a positive thing, and it certainly could be. But I'm told the general tendency of most producers is to practice some form of weed control over the summer on those "prevented planting" acres, so habitat benefits in those cases will be minimal. Alternatively, producers can plant a cover crop even if they're collecting prevented planting insurance payments, then graze or hay the cover crop in the fall to produce some revenue. Those activities usually have to wait until after November 1st, but <u>USDA made an exception this year</u> and moved the date up to September 1st at the <u>request of several lawmakers</u>. Grazed, hayed, or not, cover crops are undoubtedly better than bare dirt in at least providing some July and August brood habitat, so we should probably hope more producers take this option where weed control in fallow fields is the norm.

In other national policy news, the Association of Fish and Wildlife Agencies hired Greg Pilchak as their new Agriculture Policy Program Coordinator, replacing Andrew Schmidt who left for Ducks Unlimited about a year ago. AFWA is also hiring a <u>Government Affairs Coordinator</u> to assist Jen Mock Schaeffer with wrangling her mountain of federal and state level work.

Notes from Around the Pheasant Range

As announced earlier by Nicole Davros, the Minnesota DNR has named a new Technical Committee member. Dr. Tim Lyons started in June as MDNR's new Upland Game Research Scientist in Madelia and will serve on the TC going forward. Tim studied pheasant responses to local- and landscape-level habitat characteristics for his doctoral project at the University of Illinois at Urbana-Champaign, and worked on a variety of lesser species in Illinois, Wyoming, and Nebraska prior to accepting the Minnesota position. We all look forward to meeting Tim soon, and in the meantime he can be reached at Timothy.Lyons@state.mn.us.



Our multi-state brood survey project continues to take shape. We hit a little

snag in our funding model for the ISU graduate student but are working on a fix so we can proceed on schedule. Thirteen states are currently planning on collecting data for the project - thanks again to all who volunteered to run routes this summer. Todd Bogenschutz of the Iowa DNR will send dew measurement blocks to the volunteers soon, and Travis Runia of South Dakota Game, Fish and Parks is working to finalize the phone app for data collection.

South Dakota's Second Century Initiative to improve pheasant numbers continues to take shape and attract media attention. South Dakota Game, Fish and Parks rolled out the working lands portion of the program in June, but details on the <u>website</u> are still a little thin. Details are thick, however, on the predator bounty portion. The GIS-based "<u>Tail Tracker</u>" will give you up-to-the-minute details about where, which, and how many mesocarnivores are now taking state-sponsored dirt naps.

Want to marinate a pheasant to tenderize it? According to <u>a recent study</u>, lemon juice doesn't work but buttermilk does. Science to the rescue again.

I was invited to give a talk this month to a consortium of university researchers working in the upper Missouri River system on a project called <u>WAFERx</u> (Water Agriculture Food Energy Research Nexus). The purpose of the NSF-funded study is to evaluate potential impacts of adopting certain biofuel and carbon capture systems in the region to mitigate climate change. The University of South Dakota hosted the meeting, and Dr. David Swanson at USD has been working with South Dakota's brood route data to model land use scenario effects on pheasants (it's still a work in progress). They asked me and representatives from some other sectors (corn agriculture, ethanol, grass-based agriculture, and climatology) to briefly speak about current and potential biofuel and climate effects from our perspectives.

My presentation was mainly centered around the slide below (Figure 1), which came from the conclusions we reached in our *Wildlife Society Bulletin* CRP review paper last year. There are all kinds of potential biofuel feedstock production scenarios out there, but I thought that any system *could* benefit pheasants *if* it could provide the minimum vegetation structures described *and* be free from most disturbance (except for grazing, maybe) during the reproductive season, compared to the current habitat values of the lands involved.





The 800-pound gorilla in the biofuels world is ethanol, and the industry representative's presentation included the slide below (Figure 2), implying that the ethanol market has not spurred a noticeable increase in corn acres planted. Presumably this is intended to counteract the criticism that ethanol demand has driven a loss of native non-crop land covers which, according to the enabling language in the original Renewable Fuel Standard legislation, it wasn't supposed to do. Later, the South Dakota State Climatologist showed a slide depicting large losses of grassland acres in the Dakotas over the recent decades, presumably to cropland expansion. I wondered how both could be true, and given the importance of grassland loss and its causes to pheasants, I dug around in the literature and federal databases for some perspective.

First, it's no surprise that from ethanol's point of view, 2007 is the best time to start your trendline. That was the year farmers <u>responded in a big way</u> to ethanol's <u>then-exponential increase in corn usage</u> <u>and demand</u>, increasing corn acres nearly 20% from the year before (Figure 3). The ethanol industry can then correctly claim that corn acres haven't increased noticeably since 2007, but that statement isn't true if you start your frame of reference in 2006 or earlier.

Next, although a few producers grow continuous corn or soybeans, the two crops are generally grown in a rotational system, so it's probably more informative to look at the total corn-soybean footprint than those of the individual crops. The size of that footprint has grown by about 20 million acres since 2007 (Figure 3).







Finally, the industry's slide implies that their growth in corn consumption was accommodated by increased per-acre yields and conversion of other crops to corn, rather than breaking out new land. This appears to be true on a national scale, particularly if you count turning expiring CRP acres back into crop production as "crop conversion" rather than grassland loss (Figure 4). The total amount of land in primary field crops (corn, soybeans, wheat, cotton, rice, barley, sorghum, and oats) or in CRP has slowly





declined since around 1990. Looking at smaller scales, however, <u>USDA researchers</u> and <u>others</u> have found associations between proximity to ethanol refineries and grassland losses. So, as usual, the answers you get depend on the spatial and temporal scales in which the questions are framed.

Pheasant-relevant Media

North Dakota: spring pheasant count up from last year South Dakota begins new working lands program to help pheasants Noem's South Dakota pheasant hunting initiative needs better aim South Dakota pushes bighorn sheep tags to raise money for pheasant habitat fund Noem's South Dakota Governor's Hunt shake-up is a shot at The Establishment North Dakota pheasant, sharptail harvests hold steady in 2018 June critical month for Minnesota's pheasant population Iowa DNR: Late winter snow, spring rain dampen pheasant, quail nesting outlook Minnesota writer thinks game bird management plans are a waste of time CRP yields healthier honey bees Minnesota enacts ag fertilizer restrictions to protect drinking water NOAA forecasts very large 'dead zone' for Gulf of Mexico New USDA report: when do cover crops pay?

Recent Literature

Augustynska-Prejsnar, A., M. Ormanian, P. Hanus, M. Kluz, Z. Sokolowicz, and M. Rudy. 2019. <u>Effects of marinating breast muscles of slaughter pheasants with acid whey, buttermilk,</u> <u>and lemon juice on quality parameters and product safety.</u> Journal of Food Quality, <u>Article ID 5313496.</u>

- <u>Kubecka, B. W., J. T. Edwards, L. M. LaCoste, D. Rollins, F. Hernandez, and H. Perotto-Baldivieso.</u> <u>2019. An evaluation of population indices for northern bobwhite. Wildlife Society</u> <u>Bulletin.</u>
- Miller, K. S., L. A. Brennan, H. L. Perotto-Baldivieso, F. Hernandez, E. D. Graham, A. Z. Okay, X. B. Wu, M. J. Peterson, H. Hannusch, J. Mata, J. Robles, and T. Shedd. 2019. Correlates of habitat fragmentation and northern bobwhite abundance in the Gulf Prairie Landscape Conservation Cooperative. Journal of Fish and Wildlife Management 10:3-18.
- Hiller, T. L., J. E. McFadden, L. A. Powell, and W. H. Schacht. 2019. Seasonal and interspecific landscape use of sympatric greater prairie-chickens and plains sharp-tailed grouse. Wildlife Society Bulletin.
- <u>Tetzlaff, S. J., J. H. Sperry, and B. A. DeGregorio.</u> 2019. Effects of antipredator training, environmental enrichment, and soft release on wildlife translocations: a review and meta-analysis. Biological <u>Conservation 236:324-331.</u>
- Roy, C. L., P. L. Coy, D. Chen, J. Ponder, and M. Jankowski. 2019. Multi-scale availability of neonicotinoid-treated seed for wildlife in an agricultural landscape during spring planting. Science of the Total Environment 682:271-281.
- Green, R. E., and D. J. Pain. 2019. Risks to human health from ammunition-derived lead in Europe. Ambio.

Trivia Answer

The image is from the *Wujing Zongyao*, or the *Compendium of Important Matters from the Military Classics*, a Chinese text written around 1044 A.D. The object is an incendiary device containing an early form of gunpowder.

Okay, let's think this through. Have you ever walked up behind a pointed pheasant and tried to get it to flush in a certain direction? What has been your observed probability of success? Now, with that in mind, how willing would you be to strap a bomb to a pheasant, light the fuse like in some *Rocky and Bullwinkle* cartoon, and then fling the pheasant toward your enemy? I get the feeling this device and the term "killed by friendly fire" were invented almost simultaneously (they were for the pheasant, anyway). Without the accompanying text I'm of course assuming the drawing shows an actual weapon of war and not just some bizarre way of cooking a pheasant for the troops, although it does end up being both. A thousand years later, the University of Nebraska wildlife folks <u>gave the concept a high-tech makeover</u> for a much more pheasant-friendly purpose.

Other fun and imaginative weapons <u>described in the *Wujing Zongyao*</u> include "flying incendiary club for subjugating demons", "caltrop fire ball", "ten-thousand fire flying sand magic bomb", "big bee's nest", and my personal favorite, the "burning heaven fierce fire unstoppable bomb." You can just imagine the military R&D team watching a prototype of the BHFFUB in action, then turning to the team comedian and asking, "Okay Carl, what should we call *that* one?" In retrospect, <u>this discovery</u> might explain a lot.

If you set off any fireworks this week with names even remotely similar to the ones above, make sure you run like hell after lighting the fuse. And no attaching them to pheasants. Have a happy and safe Fourth, everyone!

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 <u>http://nationalpheasantplan.org</u>.