

Changes to Agricultural Inputs in Phase 6 Model (2016 to 2025)

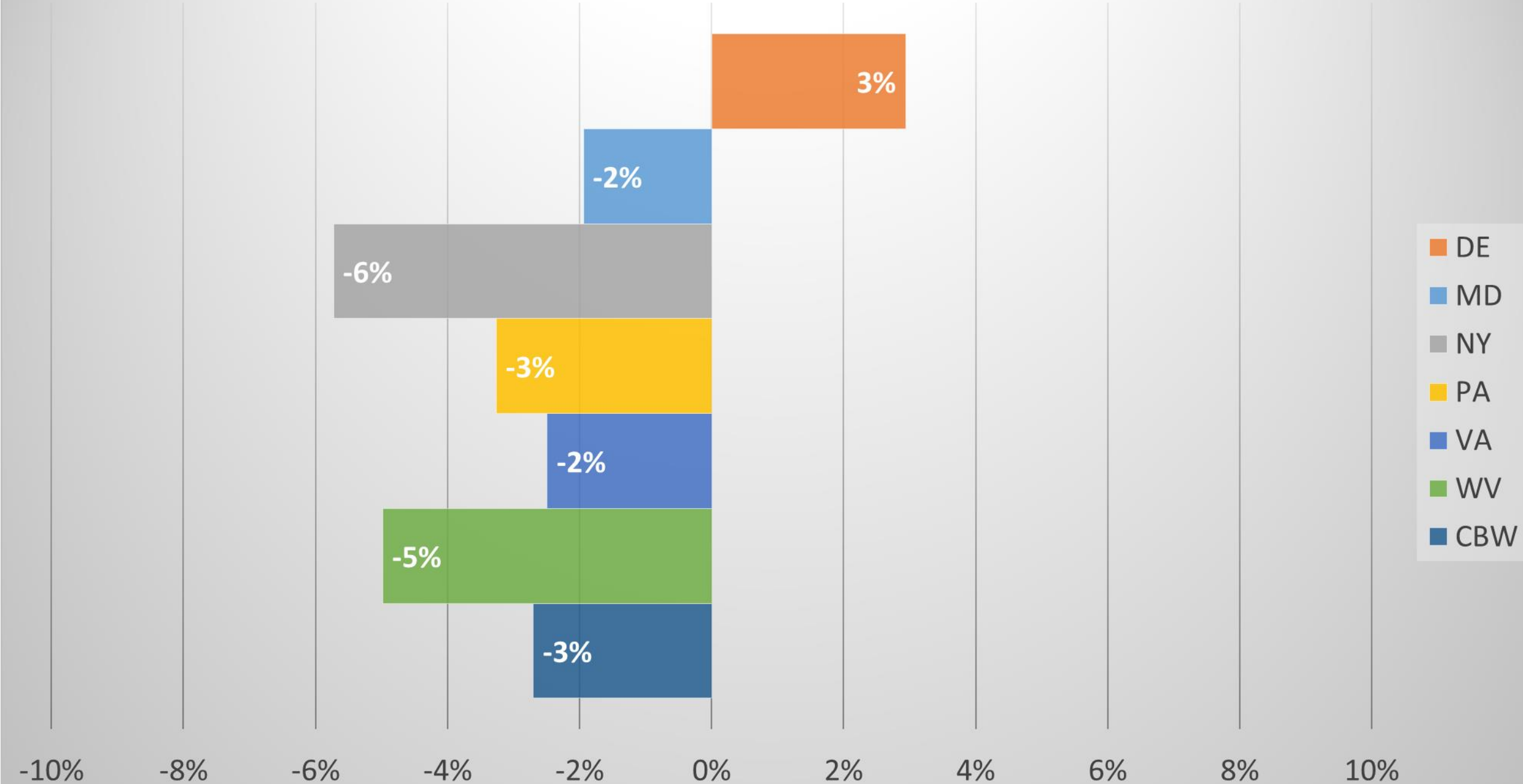
Presentation to the Chesapeake Bay Program's Agricultural Workgroup
January 18, 2018

Matt Johnston
University of Maryland - CBPO

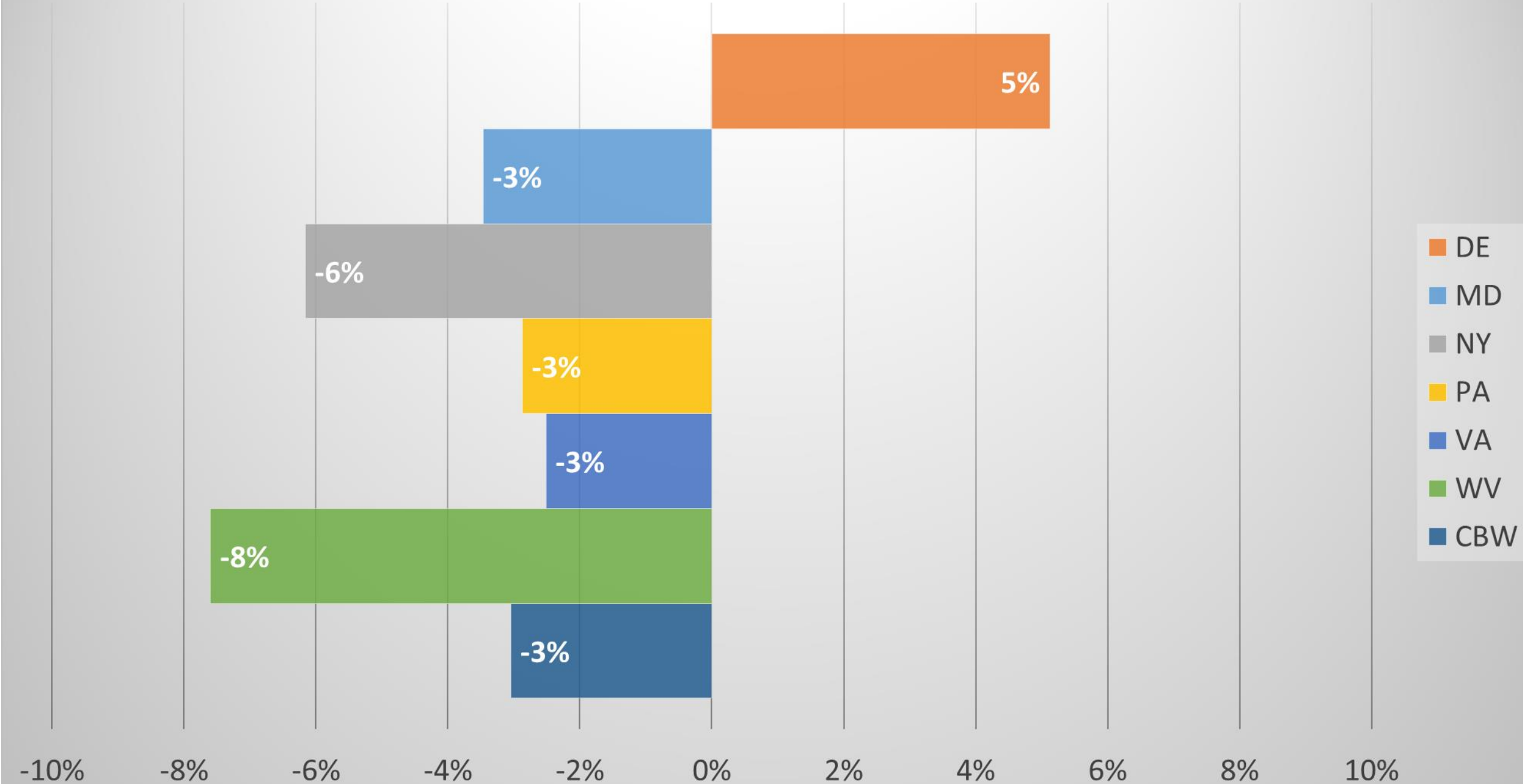
Where we are with projections

- 1985 – 2013 set in stone
- 2014 – 2025
 - Animal populations set in stone (until 2021 Milestones)
 - Agricultural acres are being estimated using a variety of land use projection scenarios
 - Partnership will be asked to determine which scenario to use for 2014 through 2019 Progress and for WIP development
 - 2021 Milestones to be developed in 2020, at that time updates will be made to animal populations and agricultural acres
 - 2017 Ag Census available
 - Yearly NASS poultry populations available
 - Fertilizer statistics out to 2017(?) available
 - Updates in subsequent Milestone years

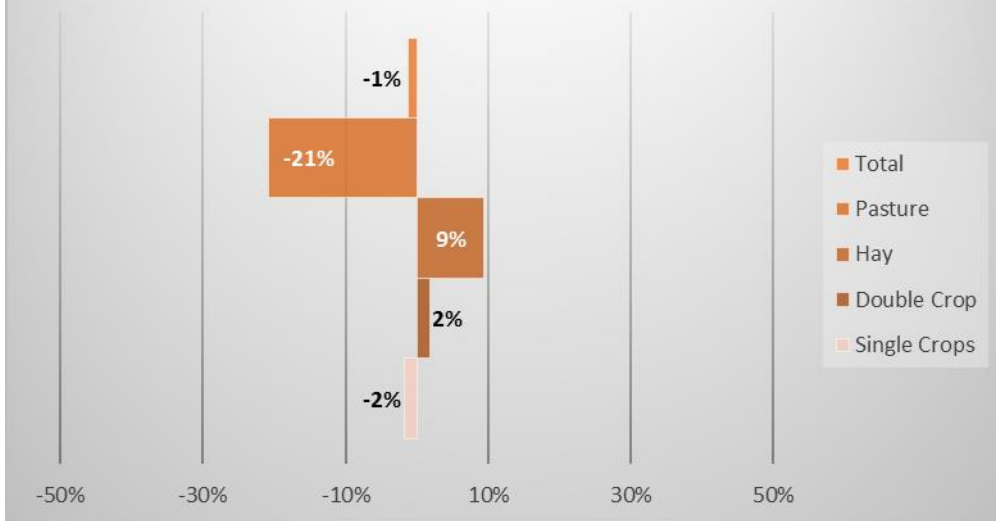
Change in EOT N Loads from 2016 through 2025 (Assume 2016 Progress BMPs)



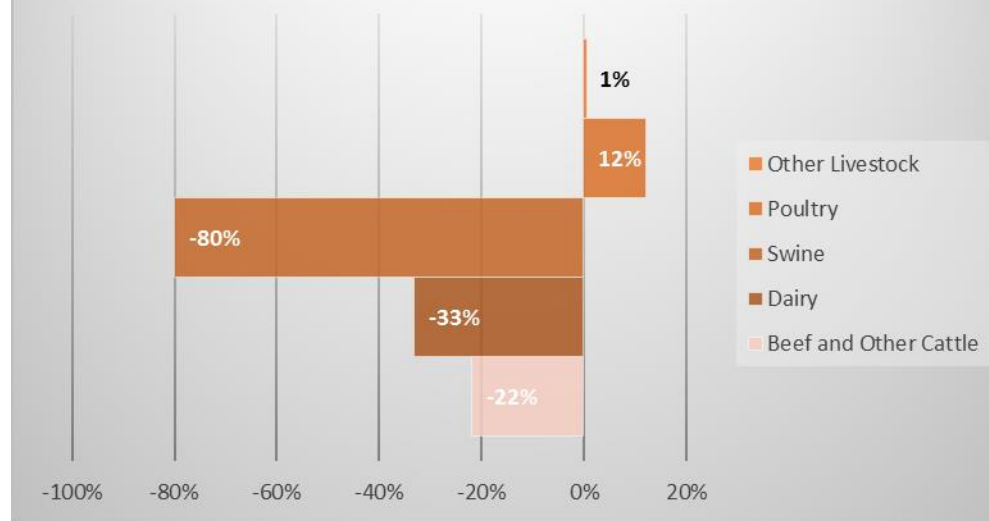
Change in EOT P Loads from 2016 through 2025 (Assume 2016 Progress BMPs)



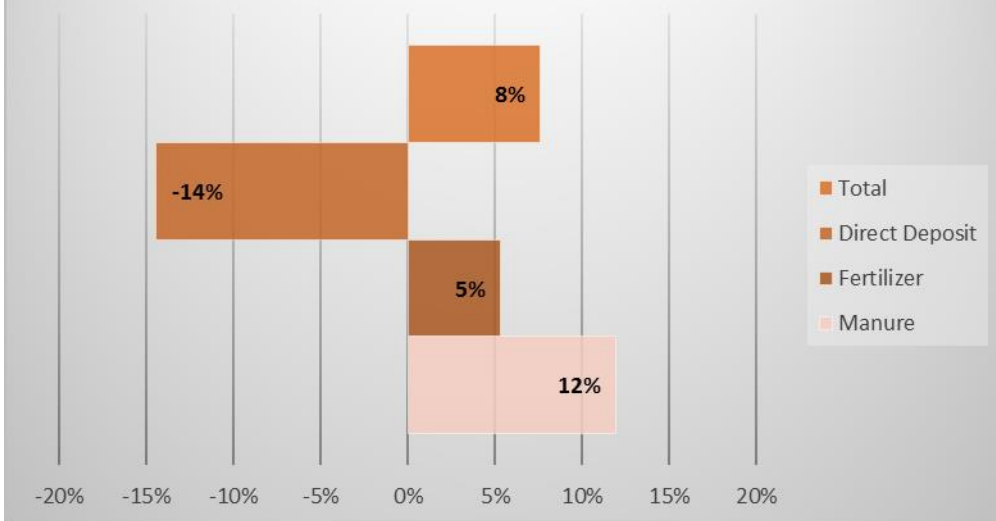
Change in DE Ag Acres from 2016 through 2025



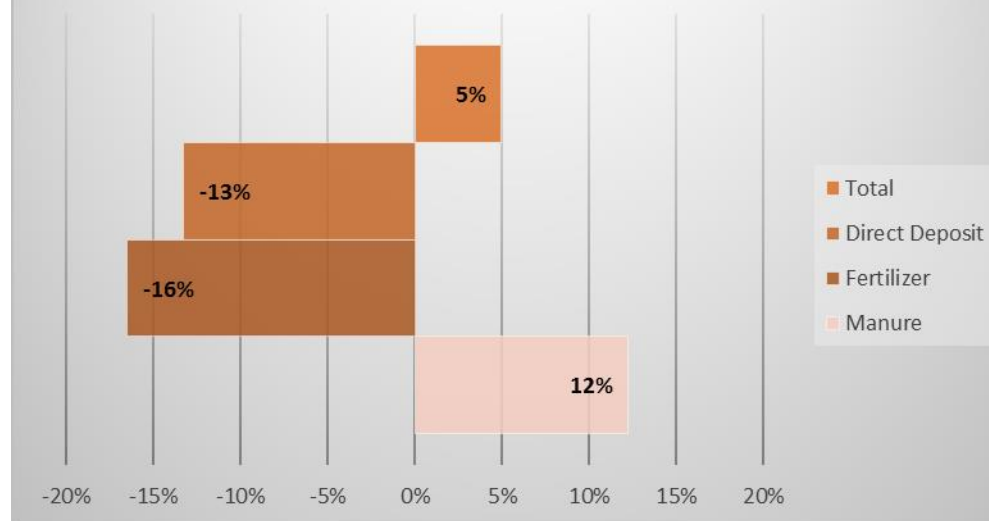
Change in DE Animal Populations from 2016 through 2025



Change in DE Nitrogen Applications from 2016 through 2025

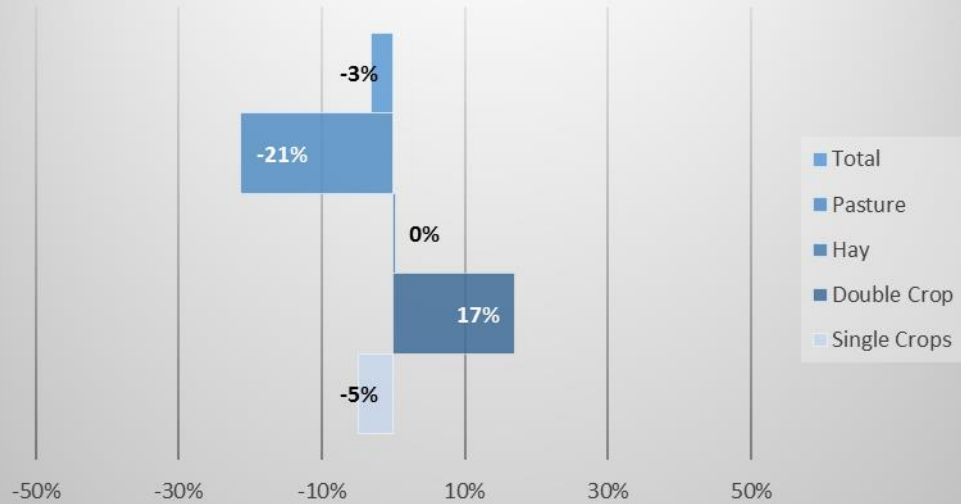


Change in DE Phosphorus Applications from 2016 through 2025

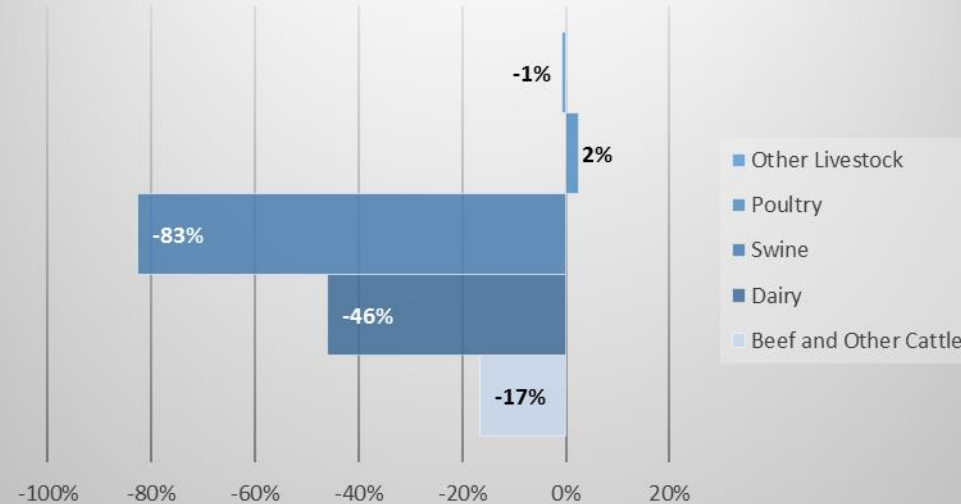


- DE
- +3% N, + 5% P
- Slight decrease in acres, and slight increase in “intensity”
- Significant increase in poultry
- Significant increase in manure N and P
- Slight increase in fertilizer N
- Significant decrease in fertilizer P

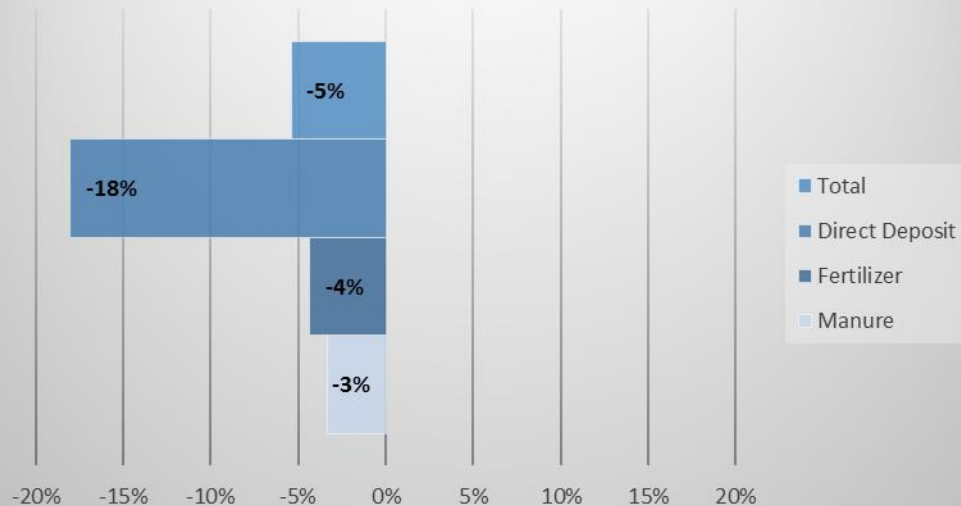
Change in MD Ag Acres from 2016 through 2025



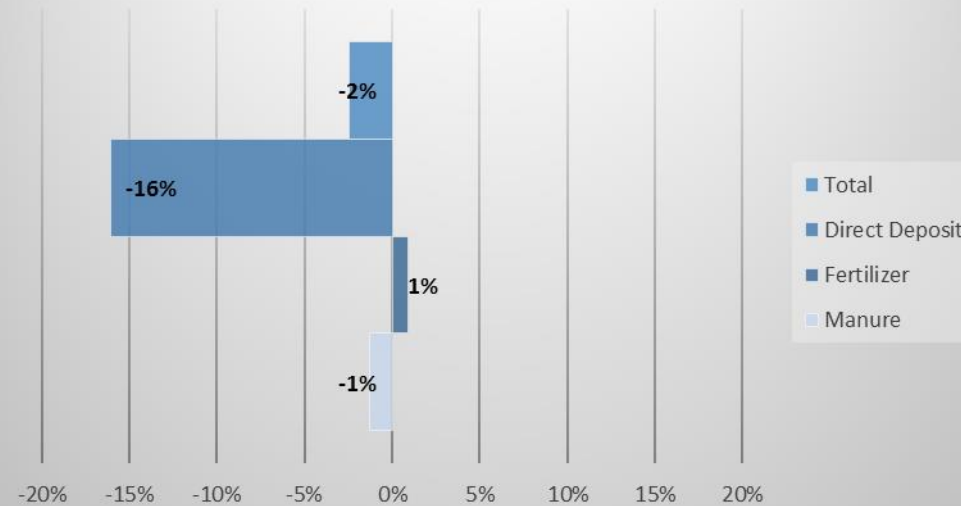
Change in MD Animal Populations from 2016 through 2025



Change in MD Nitrogen Applications from 2016 through 2025

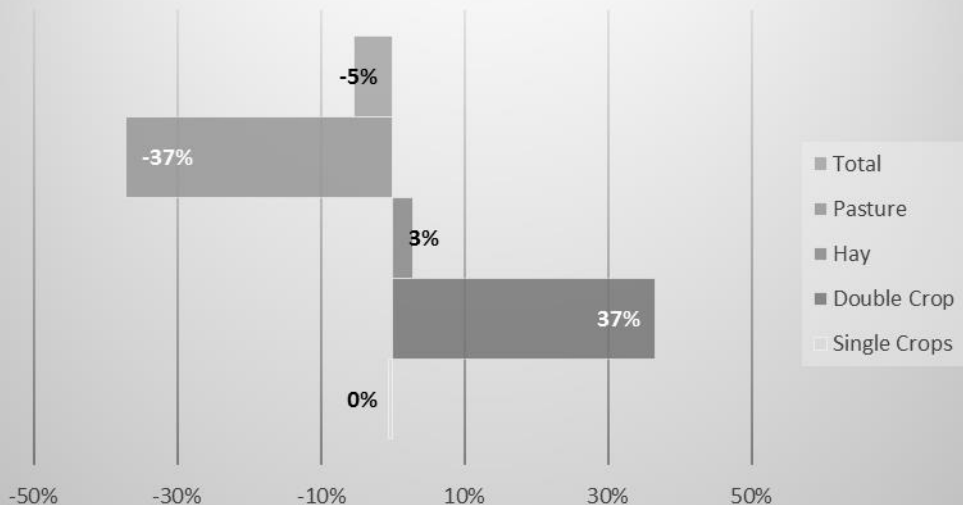


Change in MD Phosphorus Applications from 2016 through 2025

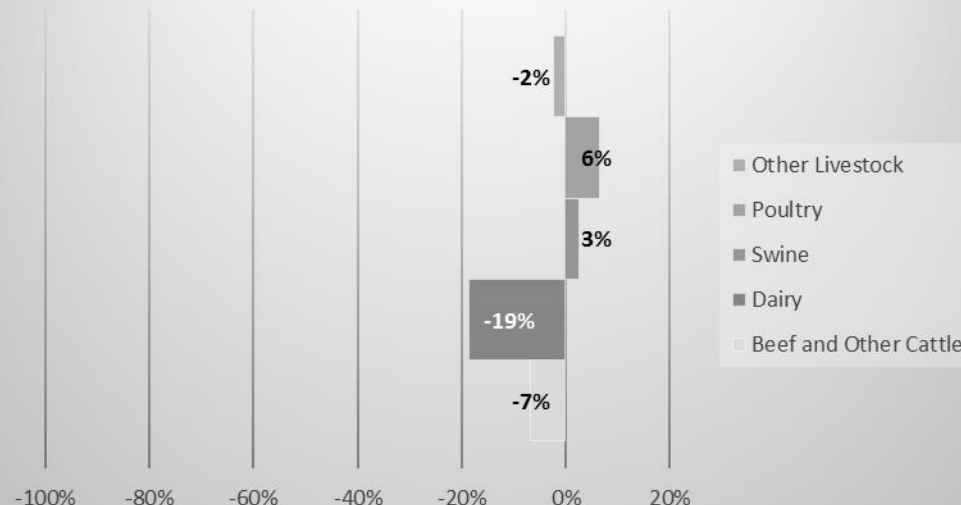


- MD
- -2% N, -3% P
- Slight decrease in acres
- Big decreases in everything but poultry
- Slight decrease in Manure N and P
- Slight decrease in fertilizer N

Change in NY Ag Acres from 2016 through 2025

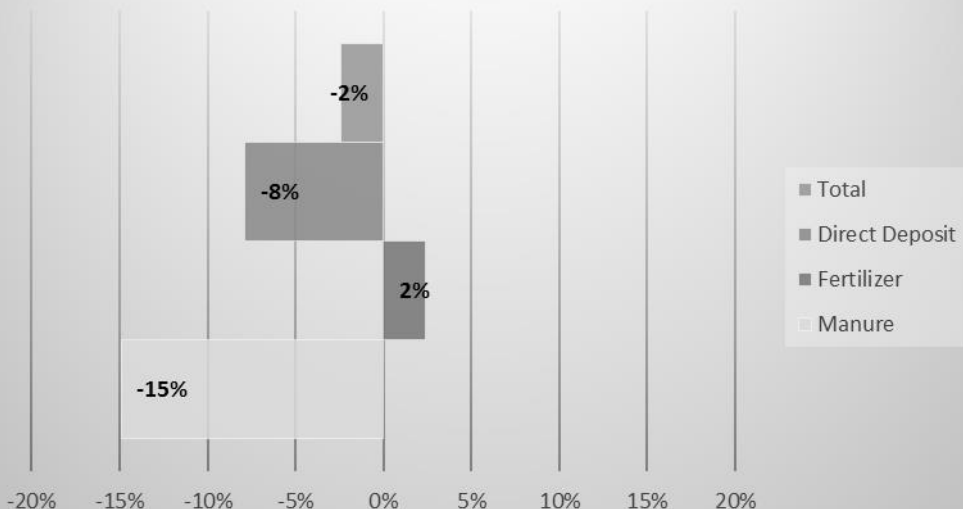


Change in NY Animal Populations from 2016 through 2025

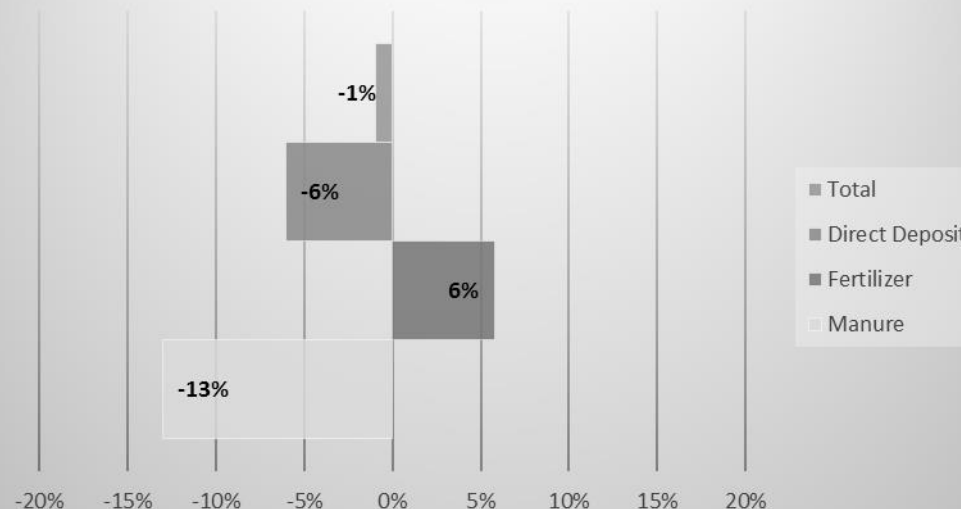


- NY
- -6% N, -6% P
- Slight decrease in acres; increase in “intensity”
- Big decrease in dairy

Change in NY Nitrogen Applications from 2016 through 2025

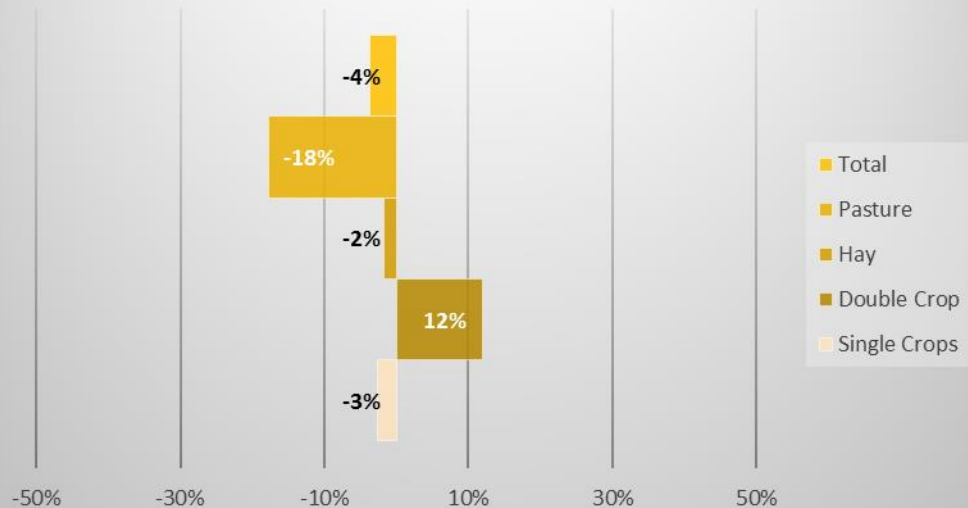


Change in NY Phosphorus Applications from 2016 through 2025

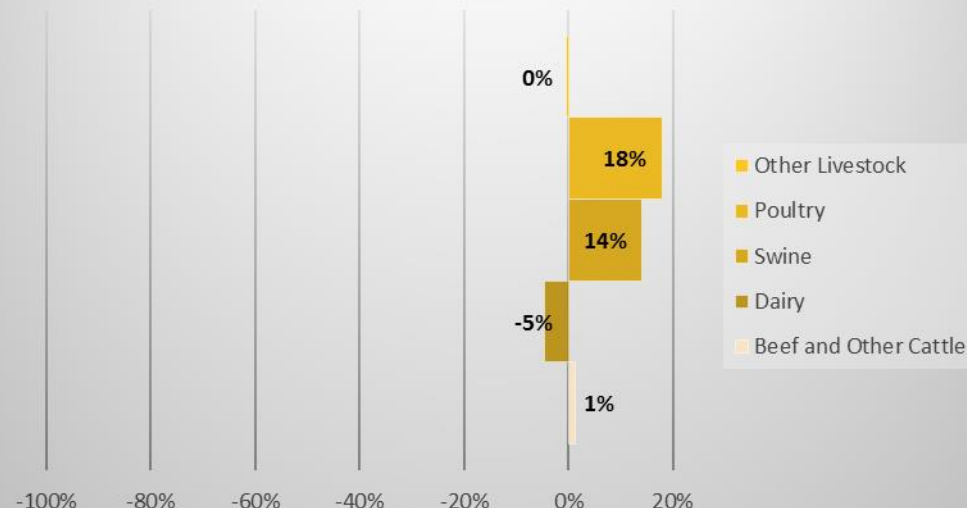


- Big decrease in manure N and P due to decrease in dairy
- Slight increase in fertilizer N and P to compensate for dairy loss and intensity of cropping

Change in PA Ag Acres from 2016 through 2025

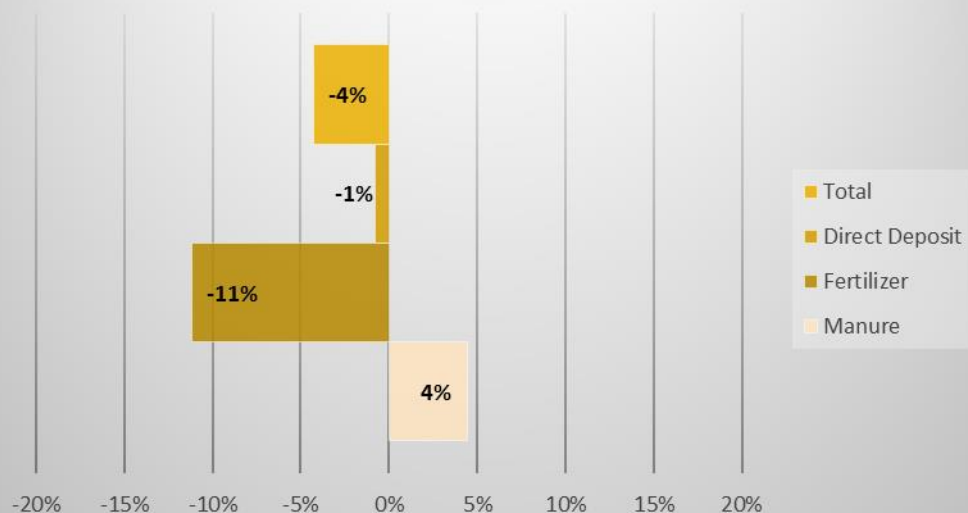


Change in PA Animal Populations from 2016 through 2025

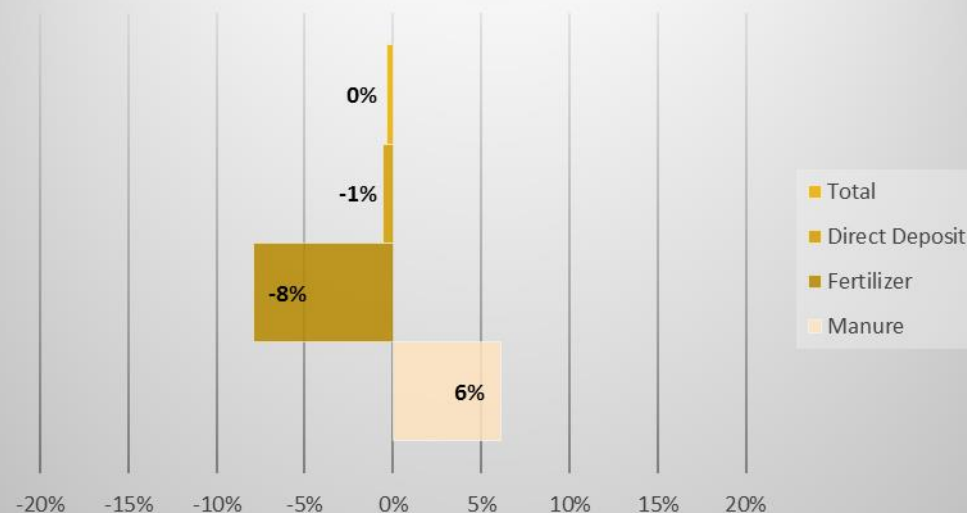


- PA
- -3% N, -3% P
- Slight decrease in acres; increase in “intensity”
- Big increases in poultry and swine

Change in PA Nitrogen Applications from 2016 through 2025

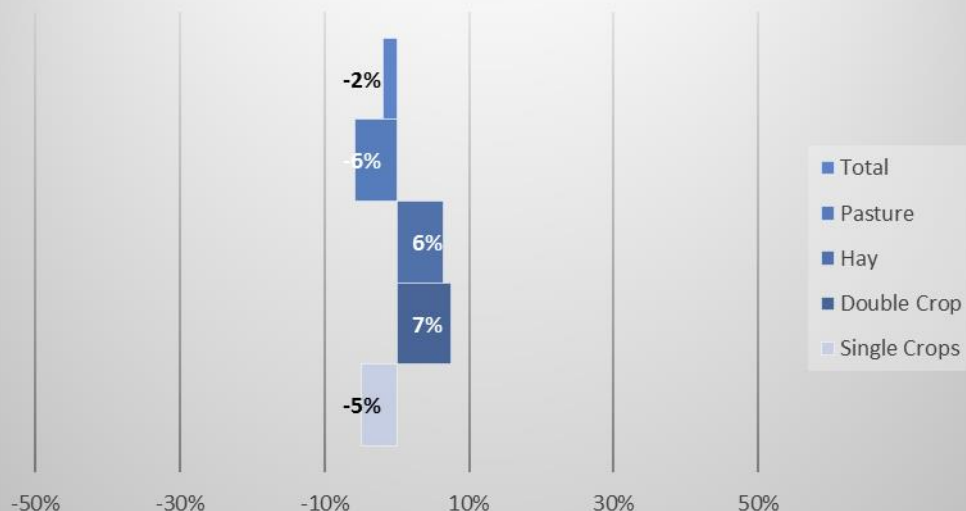


Change in PA Phosphorus Applications from 2016 through 2025

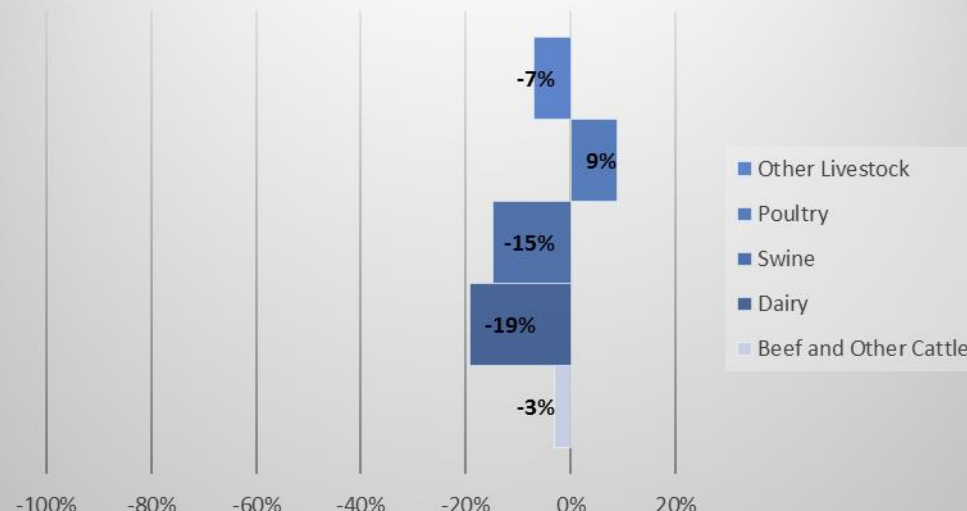


- Increases in manure N and P
- Decreases in fertilizer N and P due to increases in available manure.

Change in VA Ag Acres from 2016 through 2025

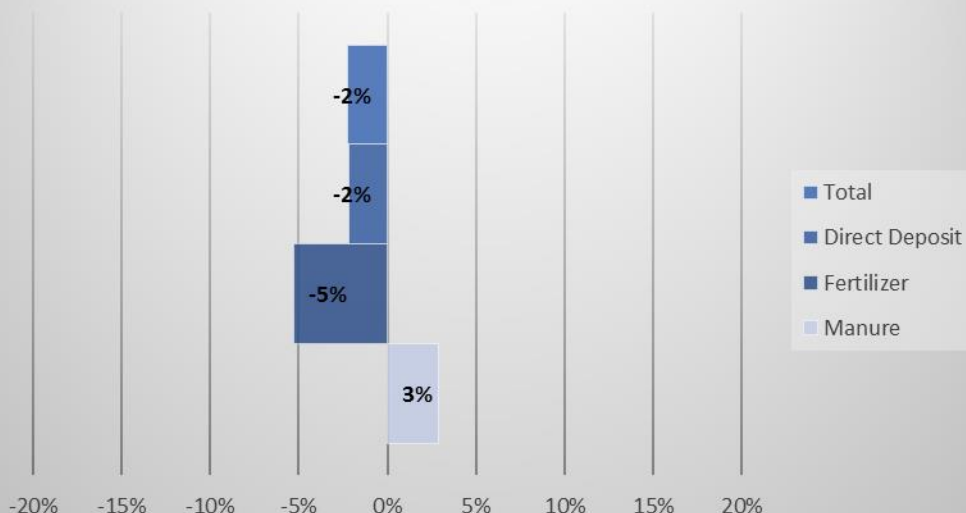


Change in VA Animal Populations from 2016 through 2025

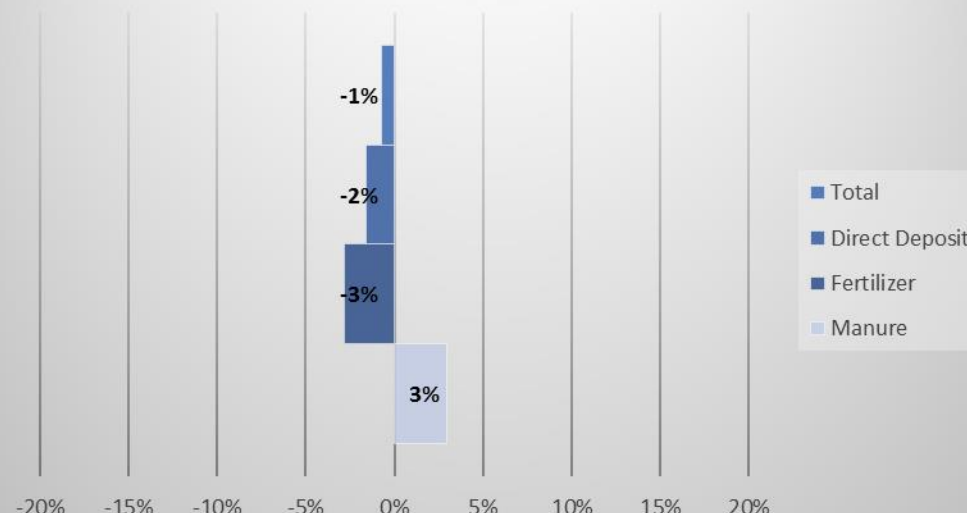


- VA
- -2% N, -3% P
- Slight decrease in acres; increase in “intensity”
- Decreases in all animals but poultry
- Increases in manure N and P driven by poultry
- Decreases in fertilizer N and P due to increases in available manure.

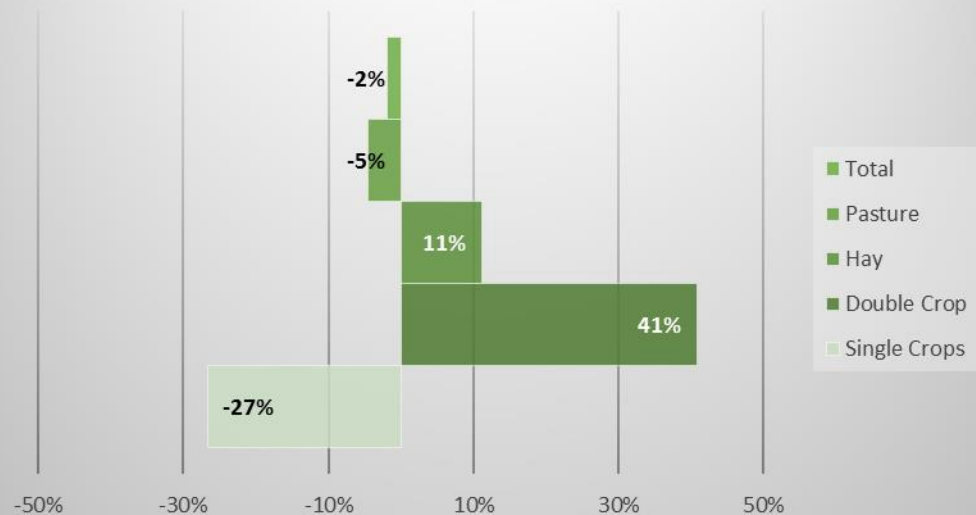
Change in VA Nitrogen Applications from 2016 through 2025



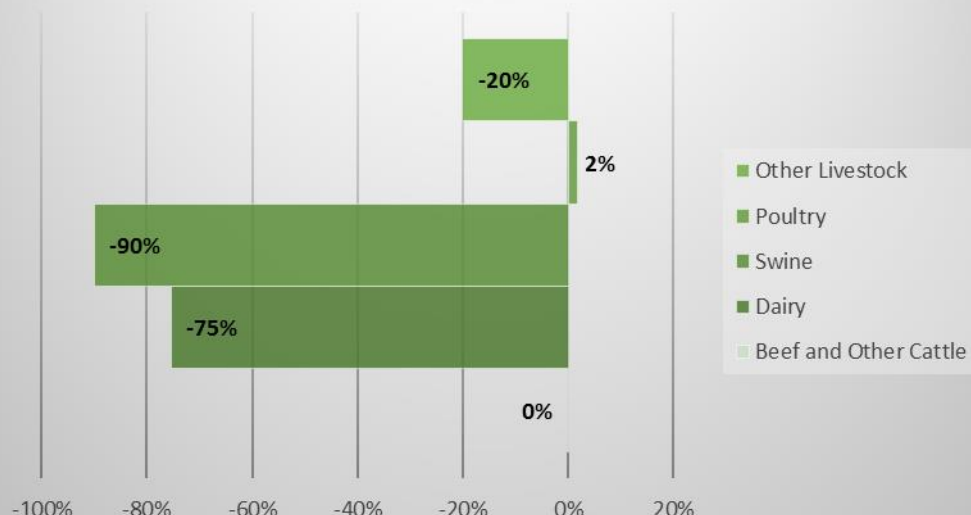
Change in VA Phosphorus Applications from 2016 through 2025



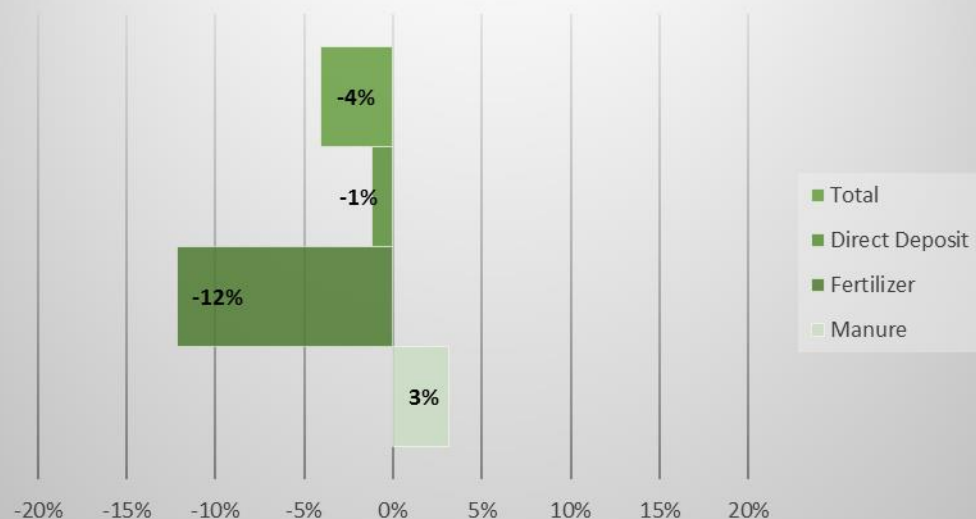
Change in WV Ag Acres from 2016 through 2025



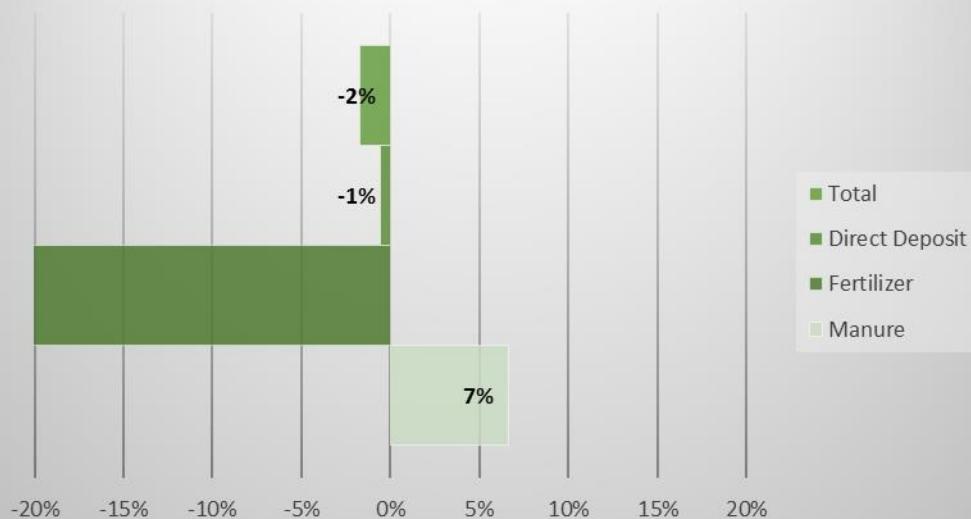
Change in WV Animal Populations from 2016 through 2025



Change in WV Nitrogen Applications from 2016 through 2025



Change in WV Phosphorus Applications from 2016 through 2025



- WV
- -5% N, -8% P
- Slight decrease in acres; large increase in “intensity”
- Decreases in all animals but poultry
- Increases in manure N and P driven by poultry
- Decreases in fertilizer N and P due to increases in available manure.