

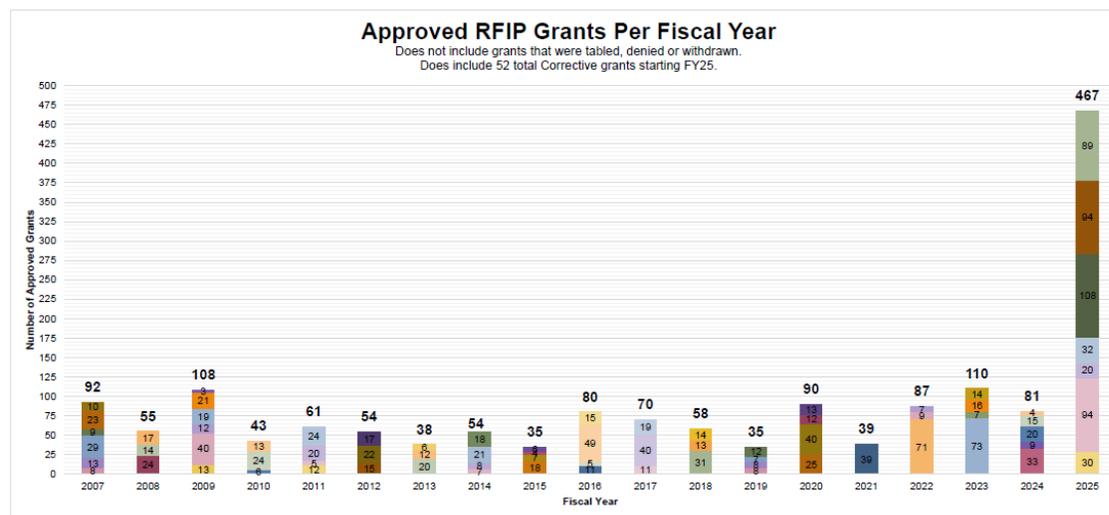
Iowa Department of Agriculture & Land Stewardship RIF Appropriations

Iowa Secretary of Agriculture Mike Naig



Renewable Fuels Infrastructure Program

- \$10 million appropriation
- \$70 million investment since 2006
 - Matched by ~\$280 million from fuel retailers
- FY2025 ~ \$11.5 million in grants



E15 Access Standard

- Effective January 1st
- More than half of Iowa's fuel stations offering E15
 - Stations offering E15 has more than tripled since 2022
- Gallons of E15 sold increased by 112% from 2022-2024
- 2023-2024: \$65 million in fuel savings to drivers



Iowa's Leadership in Conservation

- 1935 → Establishment of USDA-Soil Conservation Service
 - Iowa passes enabling legislation and State Soil Committee established in 1939
 - Soil Conservation Districts in Iowa start being established in 1940
- **1973 → Iowa becomes first state to appropriate state funds for soil conservation cost share**
- 1987 → Mission broadened for Soil AND WATER Conservation Districts
- 2001 → CREP wetland initiative created to build and restore wetlands that improve water quality
- 2024 → Final ag drainage well closed after 20+ year effort



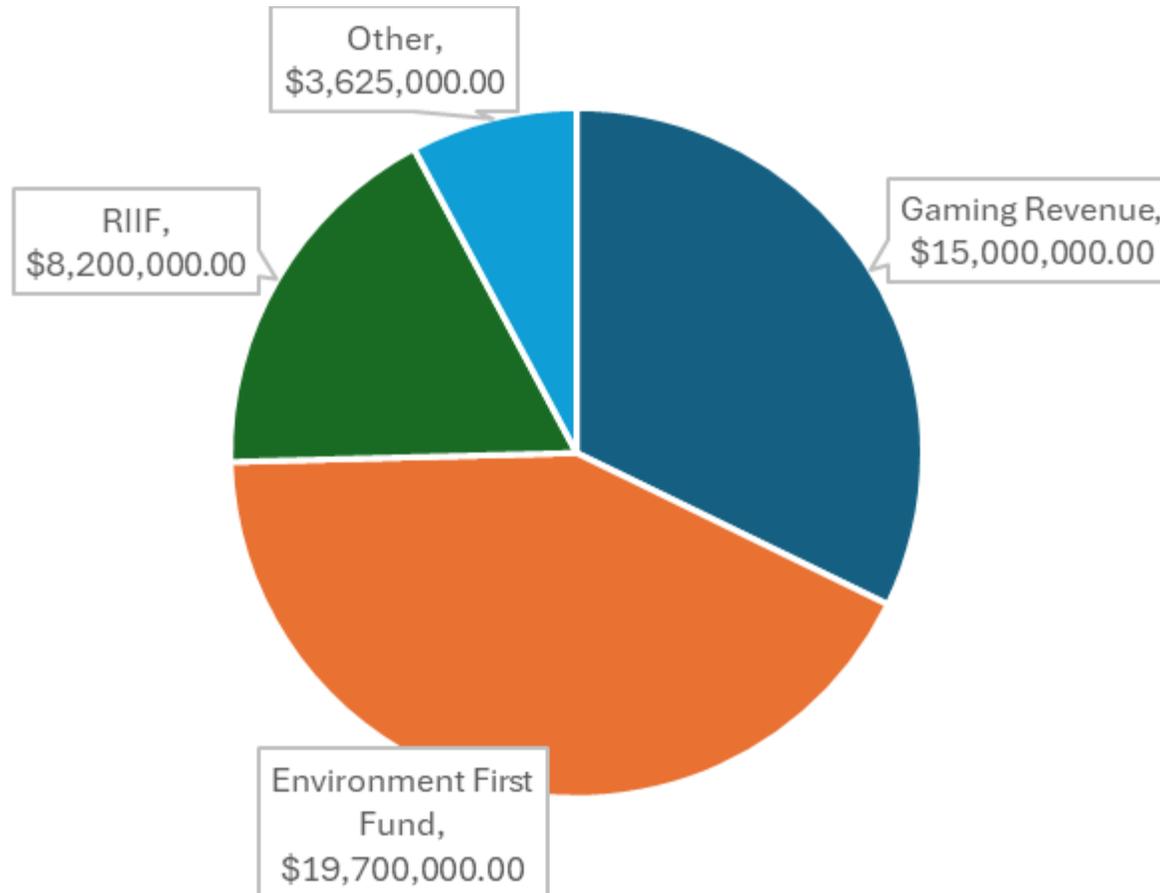
INRS Basics

- Collaborative, systems-wide approach
 - Integrates non-point (agriculture) and point (industrial and municipal wastewater treatment plants) solutions to reduce N and P
- Led by IDALS, IDNR, and ISU
- INRS → Dynamic document that will change over time as new information, data, and science is discovered and adopted



IOWA STATE
UNIVERSITY

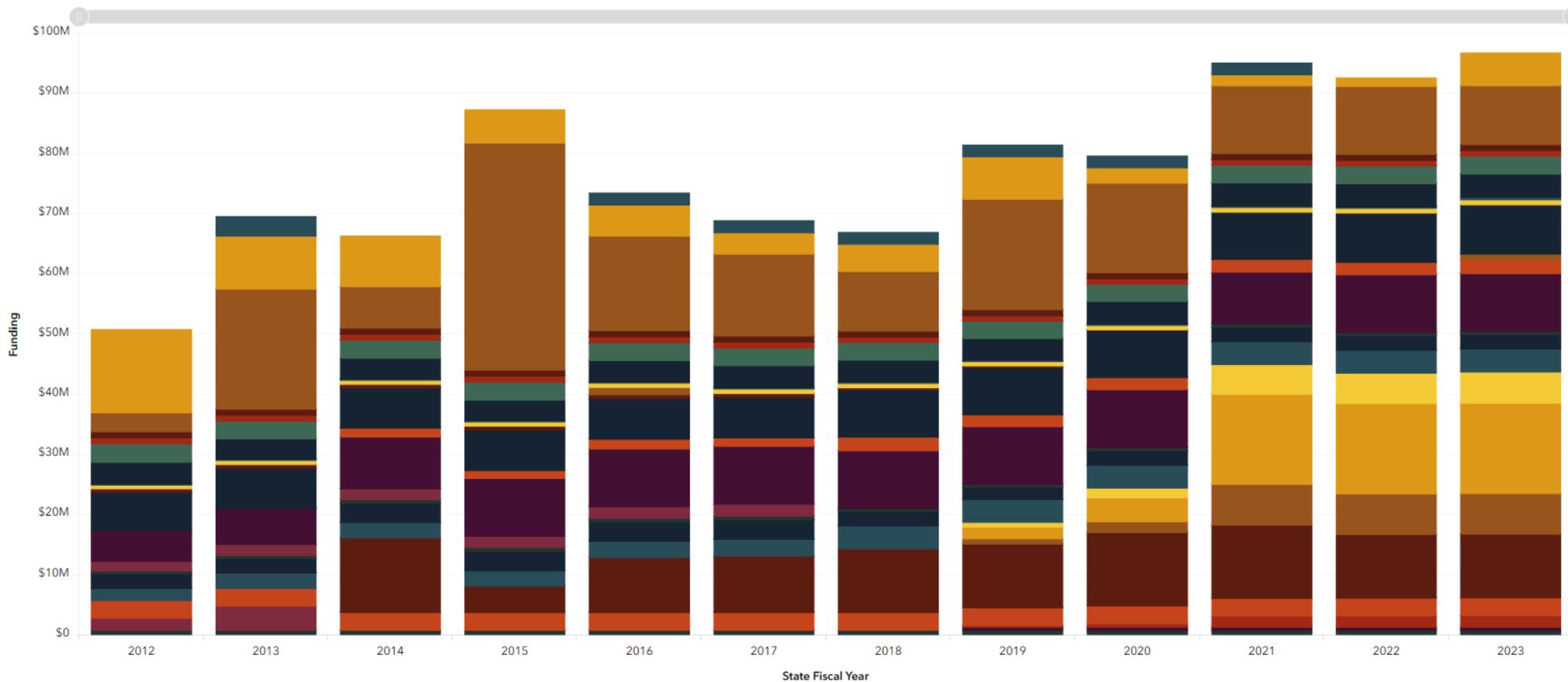
Water Funding at IDALS



State Investment in INRS

State Funding Reported in Support of the Iowa Nutrient Reduction Strategy by Program

Individual years may be selected by interactively moving the end(s) of the scroll bar to select years. Funding source(s) can be excluded from view by selecting the corresponding color(s) in the legend (right side of pane).



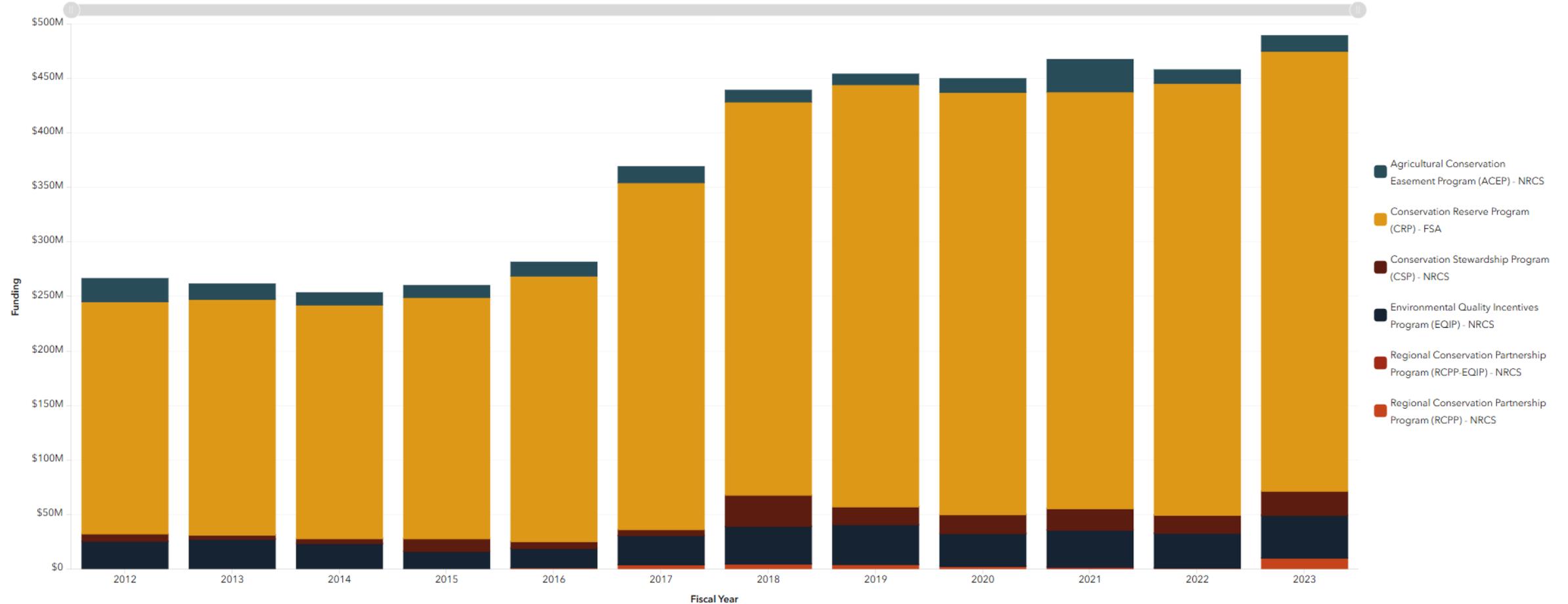
Funding by appropriation for state programs, subappropriations applied, and funds applicable to the Iowa Nutrient Reduction Strategy.



Federal Investment in INRS (nonpoint)

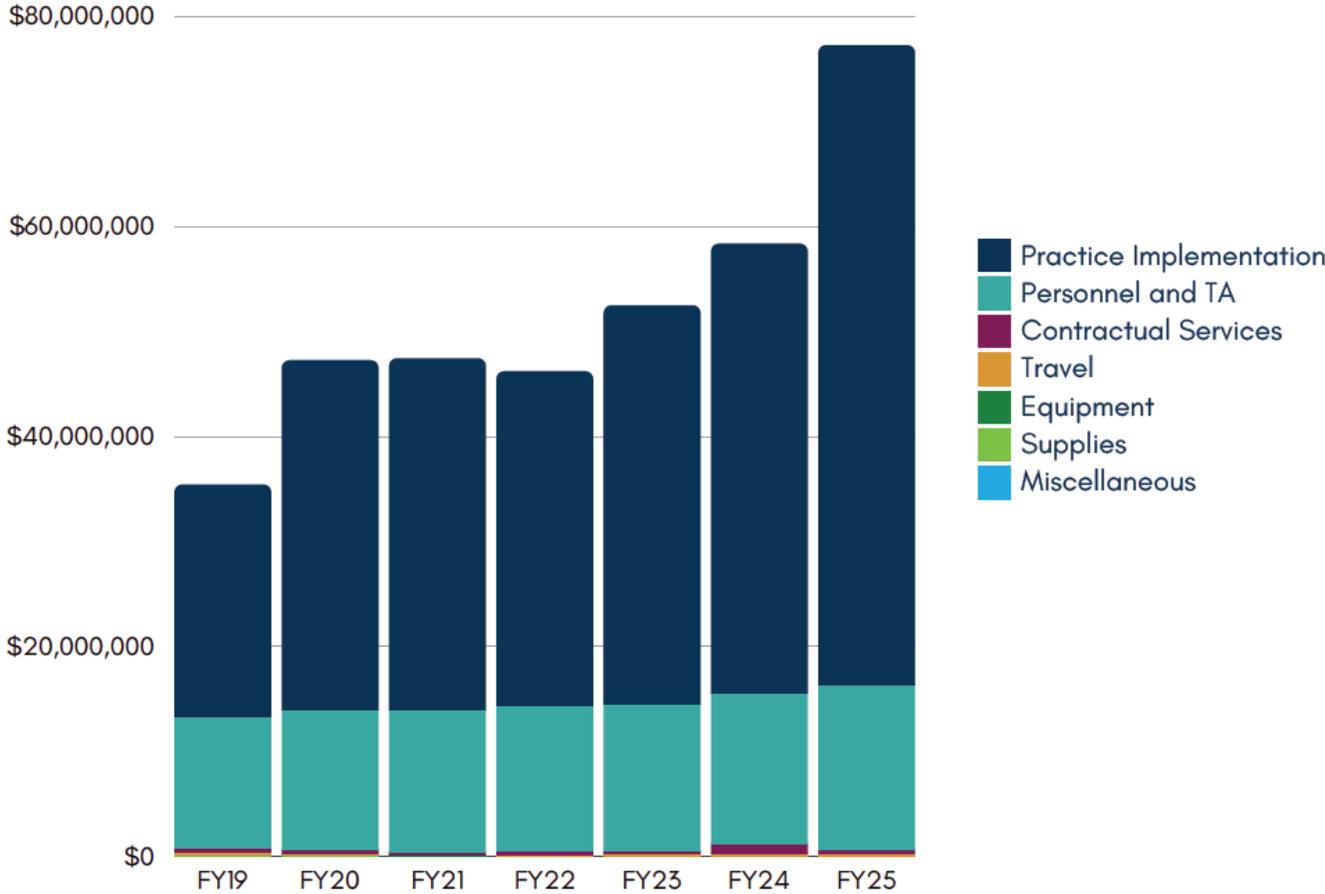
Federal Nonpoint Source Funding Related to the Iowa Nutrient Reduction Strategy

Individual years may be selected by interactively moving the end(s) of the scroll bar to select years. Funding source(s) can be excluded from view by selecting the corresponding color(s) in the legend (right side of pane).



Acceleration of Adoption

IDALS Water Quality Expenditures FY19-25



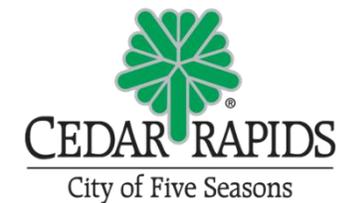
	Practice	Comments	% Nitrate-N Reduction*
			Average (SD [†])
Nitrogen Management*	Timing	Moving from fall to spring pre-plant application	6 (25)
		Spring pre-plant/sidedress 40-60 split Compared to fall-applied	5 (28)
		Sidedress – Compared to pre-plant application	7 (37)
		Sidedress – Soil test based compared to pre-plant	4 (20)
	Source	Liquid swine manure compared to spring-applied fertilizer	4 (11)
		Poultry manure compared to spring-applied fertilizer	-3 (20)
	Nitrogen Application Rate	Nitrogen rate at the MRTN (0.10 N:corn price ratio) compared to current estimated application rate. (ISU Corn Nitrogen Rate Calculator – http://cnrc.agron.iastate.edu can be used to estimate MRTN but this would change Nitrate-N concentration reduction)	10
	Nitrification Inhibitor	Nitrapyrin in fall – Compared to fall-applied without Nitrapyrin	9 (19)
	Cover Crops	Rye	31 (29)
		Oat	28 (2)
Living Mulches	e.g. Kura clover – Nitrate-N reduction from one site	41 (16)	
Land Use	Perennial	Energy Crops – Compared to spring-applied fertilizer	72 (23)
		Land Retirement (CRP) – Compared to spring-applied fertilizer	85 (9)
	Extended Rotations	At least 2 years of alfalfa in a 4 or 5 year rotation	42 (12)
	Grazed Pastures	No pertinent information from Iowa – assume similar to CRP	85
Edge-of-Field	Drainage Water Mgmt.	No impact on concentration	33 (32)
	Shallow Drainage	No impact on concentration	32 (15)
	Wetlands	Targeted water quality	52
	Bioreactors		43 (21)
	Buffers	Only for water that interacts with the active zone below the buffer. This would only be a fraction of all water that makes it to a stream.	91 (20)
	Saturated Buffers	Divert fraction of tile drainage into riparian buffer to remove Nitrate-N by denitrification.	50 (13)
	Multi-purpose Oxbow	Targeted water quality	42 (6)

	Practice	Comments	% P Load Reduction*
			Average (SD ^c)
Phosphorus Management*	Phosphorus Application	Applying P based on crop removal – Assuming optimal STP level and P incorporation	0.6 ^d
		Soil-Test P – No P applied until STP drops to optimum or, when manure is applied, to levels indicated by the P Index ^f	17 ^e
	Source of Phosphorus	Liquid swine, dairy, and poultry manure compared to commercial fertilizer – Runoff shortly after application [‡]	46 (45)
		Beef manure compared to commercial fertilizer – Runoff shortly after application [‡]	46 (96)
	Placement of Phosphorus	Broadcast incorporated within 1 week compared to no incorporation, same tillage	36 (27)
		With seed or knifed bands compared to surface application, no incorporation	24 (46)
	Cover Crops	Winter rye	29 (37)
	Tillage	Conservation till – chisel plowing compared to moldboard plowing	33 (49)
		No till compared to chisel plowing	90 (17)
	Land Use Change	Perennial Vegetation	Energy Crops
Land Retirement (CRP)			75
Grazed pastures			59 (42)
Erosion Control and Edge-of-Field	Terraces		77 (19)
	Buffers		58 (32)
	Control	Sedimentation basins or ponds	85
	Blind Inlet	Sediment control	50



Partnerships

- Nearly 450 partners statewide since 2013



Cover Crops

- **Benefits**
 - Holds soil in place, prevents runoff
 - Absorbs excess N post-harvest
 - Long-term soil health
 - 30% N/P reduction
- **Progress:** Nearly 4 million acres statewide
 - Less than 400k in 2013
 - 2 million in 2018



Water Quality Wetlands

- **Benefits**

- 100+ year lifespan
- Targeted in the landscape
- Large treatment area
- Wildlife habitat
- Flood mitigation
- Up to 90% N reduction

- **Progress:** 153 constructed to date

- 100 built 2001-21
- 53 built in last 4 years



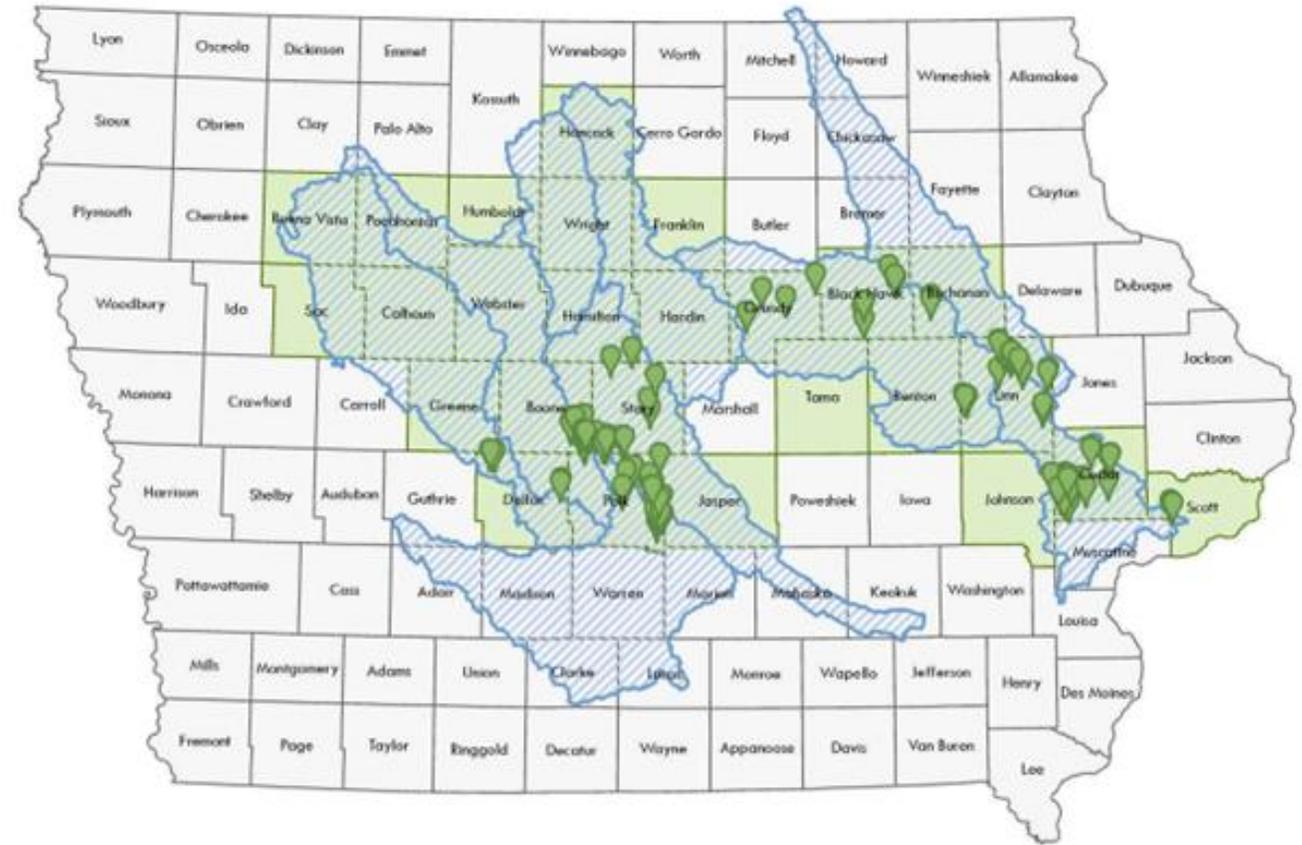
Batch and Builds

- **Benefits**

- Edge-of-field infrastructure practices that filter runoff from tile drainage
- 43-50% N reduction
- Streamlined delivery model of conservation practices

- **Progress:** 429 structures built to date

- 147 built 2010-2021
- 282 built in last 4 years



Iowa Batch and Build Program

August 2025



Cattle & Conservation Working Lands

- Currently active in 8 counties
 - Focus on less productive row crop acres that could be more beneficial in grazing
- Practices:
 - Hay & Pasture Seedings
 - Pasture Renovation
 - Annual Forages
 - Rotational Grazing
 - Cover Crops
 - Watering Facilities



Urban Conservation

- Practices that help slow down runoff from/in urban areas to help with flood reduction and water quality benefits
- Since 2015: 138
 - \$17.4M from IDALS
 - \$51.6M total investment
- New projects to be announced this spring



Fertilizer Management (N Initiative)

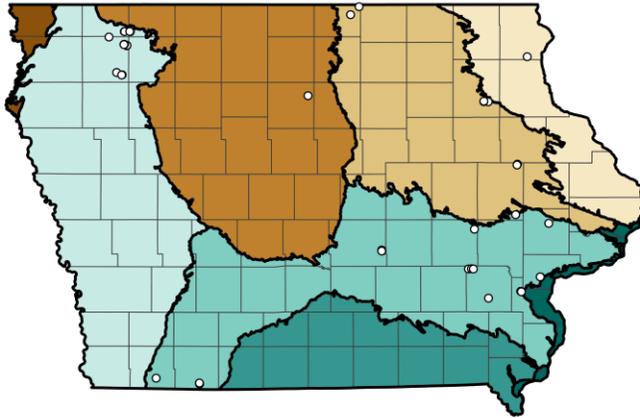
- \$1 million-dollar RIF appropriation to Iowa State via IDALS
- Public-private partnership
- Provides optimum N Rate for farmers (EONR)



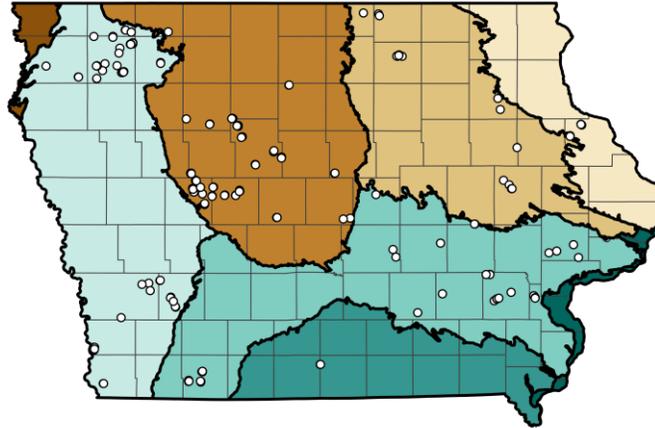
IOWA NITROGEN INITIATIVE

Four Years of the Iowa Nitrogen Initiative

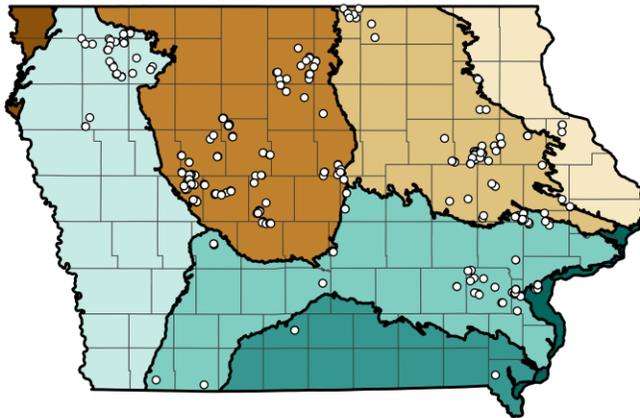
2022 INI Trials



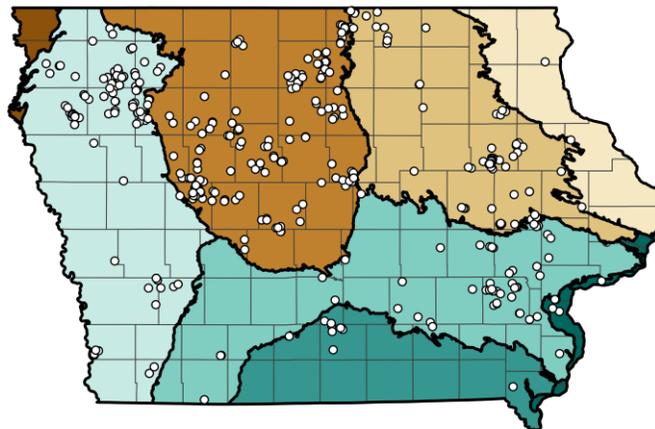
2023 INI Trials



2024 INI Trials



2025 INI Trials



Year	Farmers	Trials
2022	17	67
2023	75	270
2024	86	470
2025	141	620



Nitrogen Fertilizer Application Consultation Tool

IOWA NITROGEN INITIATIVE

Moving Forward



Nitrogen Fertilizer Application Consultation Tool

Finding the nitrogen rate for your farm to maximize productivity, profitability, and environmental performance

This decision support tool leverages data from the Iowa Nitrogen Initiative on-farm nitrogen rate trials with cropping systems modeling. See the optimum nitrogen rate under different scenarios by selection location, anticipated crop year weather, residual soil nitrogen, crop rotation, planting date, and fertilizer/crop pricing.

[Explore on-farm rate trials](#)

[Discover your optimum N rate ↓](#)

<https://n-fact.ag/start>