

Exhibit R – FY 2018 RCPP SmithfieldGro: Sustainable Grain Supply Chains

Initiative Name and Acronym – RCPP SmithfieldGro: Sustainable Grain Supply Chains (SSGSC)

Initiative Description / Summary:

This RCPP project expands an innovative collaboration between Environmental Defense Fund (EDF) and Smithfield Foods, the world's largest pork producer, to address nutrient management and soil health in the company's grain supply chain. In 2014 Smithfield created SmithfieldGro, a voluntary program that provides agronomic assistance and conservation incentives to grain growers in the company's sourcing region. Walmart awarded those efforts "Best in Class." In 2016, SmithfieldGro improved practices on about 300,000 acres in North Carolina and Iowa. In 2015, Smithfield, EDF, and academic and producer group partners successfully applied for a state RCPP award in North Carolina. In the first signup, applicants requested 10 times the amount of funding that the partners allocated for that year. This RCPP will launch new efforts in Iowa and expand efforts in North Carolina. RCPP allows SmithfieldGro to engage new partners, incorporate strong science, and reach farmers who may not enroll in traditional conservation efforts.

The planned project area includes seven (7) counties in eastern North Carolina (Sampson, Duplin, Greene, Wayne, Lenoir, Pitt, and Robeson) and five (5) counties in northwest Iowa (Wright, Humboldt, Kossuth, Palo Alto, Winnebago). These counties were selected based on both scientific, business, and relationship criteria. The partners cross-referenced areas of water quality concern from nutrient loss with Smithfield's grain sourcing regions, agronomist capacity, and existing relationships with grain growers and hog producers. The project target area will lead to successful, measurable outcomes in addressing water quality and soil health by focusing on the counties in North Carolina and Iowa where Smithfield has the strongest relationships and can have the greatest influence over farmer practices. In Iowa, Smithfield has a feed mill in Algona and the company has a staff of agronomists and planners that work with approximately 500 hog and grain producers in nearby counties. The Smithfield staff write nutrient management plans for approximately 500,000 acres. The five (5) counties lie within the upper Des Moines watershed, and overlap three (3) HUC-8 watersheds: East Fork Des Moines (Kossuth, Winnebago, Humboldt), Upper Des Moines (Humboldt, Palo Alto), and Boone (Kossuth, Wright). These watersheds have been identified as nutrient-impaired (Schilling and Wolter 2009). The primary resource concern is Water Quality Degradation.

Smithfield will be an important addition to the partners already in the area who are working to expand conservation practice adoption. Farmers in the target counties already see Smithfield's agronomists as experts on manure nutrient management. The agronomists can help overcome farmer concerns about the applicability of conservation practices in the target region by lending their support and showing how those practices can be integrated into current grain production and manure management planning.

The project approach is to drive the adoption of practices that benefit water quality, soil health and climate by combining the efforts of producer organizations, non-profit agricultural conservation organizations, state agencies, NRCS, and Smithfield's supply chain sustainability initiative. The partners will assist farmers in applying for EQIP practices to address identified resource concerns. This project expands long-term conservation capacity in the targeted areas by involving the Smithfield agronomists in the education and assistance of farmers implementing conservation practices. In addition, peer-reviewed research co-authored by EDF shows that a targeted watershed approach combining in-field nutrient efficiency and soil health practices with edge-of-field nutrient filtration practices is the most effective way to prevent agricultural nutrient losses to water (McLellan et al. 2014). We will seek to apply the edge-of-field practices in a targeted manner to maximize water quality benefits.

In Iowa, we will collaborate with Iowa Soybean Association (ISA) which is finalizing watershed plans in SE Kossuth, NE Humboldt and central Wright counties based on a spreadsheet model developed by ISA using the science from the Iowa Nutrient Reduction Strategy. ISA is also developing a decision tree that we will utilize for the placement of edge-of-field practices. Several of these practices also promote the secondary resource concerns, soil quality degradation and climate change.

Participating Counties:

Humboldt, Kossuth, Palo Alto, Winnebago and Wright Counties.

(IA440-581-IAM, 2nd Ed., Sep 2018)

Exhibit R – FY 2018 RCPP SmithfieldGro: Sustainable Grain Supply Chains

Program Contact Information:

Paul Goldsmith at (515) 323-2224 or paul.goldsmith@ia.usda.gov

Project Financial Assistance through EQIP:

- Iowa EQIP Financial Assistance is \$602,540

ProTracts Requirements:

1. Subaccount Guidance:

One subaccount is available in ProTracts to support this Initiative under RCPP EQIP 2014 titled “SmithfieldGro: Sustainable Grain Supply Chains.”

Batching Dates will be the regular EQIP Batching Dates and will be placed on the NRCS Web Page.

2. Application, Evaluation, and Ranking Tool Guidance – Choice Lists and Matrix Data:

- a. Approved Land Types – The following applicable land types are eligible for this initiative:

Crop

- b. RCPP Application Type - National

- c. Approved Natural Resource Concerns:

Water Quality Degradation – Excess Nutrients in Surface and Groundwater
Nutrients in Surface Water
Nutrients in Groundwater

Soil Quality Degradation – Organic Matter Depletion
Organic Matter Depletion
Compaction

Air Quality Impacts
Emissions of Ozone Precursors
Emissions of Greenhouse Gases (GHG's)

Note: No additional resource concerns may be added or used in ProTracts AERT to support this initiative.

- d. For this initiative the current FY EQIP Cost List will be used for the Eligible Practices listed below with Initiative Payment Rates.

CAP Practices (EQIP or EQIP HU Payment Rates)

Practice Name	Practice Code
Drainage Water Management Plan	130
Nutrient Management Plan	104

Exhibit R – FY 2018 RCPP SmithfieldGro: Sustainable Grain Supply Chains

Conservation Practices (Initiative and Initiative HU Payment Rates)

Practice Name	Practice Code
Conservation Crop Rotation	328
Cover Crop	340
Denitrifying Bioreactor	605
Drainage Water Management	554
Filter Strip	393
Nutrient Management	590
Residue and Tillage Management, No-Till	329
Riparian Forest Buffer	391
Saturated Buffer	604
Structure for Water Control	587
Subsurface Drain	606

- e. The current FY20XX EQIP Cost List will be uploaded into ProTracts for the RCPP Projects each fiscal year. This Cost List will be provided to the Field Office to be loaded into Toolkit.

3. **Application, Evaluation, and Ranking Tool Guidance – Ranking Criteria Questions:**

Ranking will be uploaded into ProTracts each fiscal year.

4. **Additional Initiative Guidance:**

The primary project partners for this project are:

Environmental Defense Fund (EDF) contact Shelby Shelton, phone (919)-881-2917 or email sshelton@edf.org.

Smithfield Foods contact Dawn Williamson, phone (910)-385-6186 or email dwilliamson@smithfield.com.

Project staff assigned to Water Quality Initiatives as part of the Nutrient Management Reduction Strategy will assist with project implementation.