

## Step 6: Project Details for – Tillage and Nutrient Application Equipment Modifications (ESIM-PD-J)

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1. What equipment are you applying for? (Equipment must not be currently used on the farm operation. You may ONLY apply for one piece of equipment per application - select one)

Equipment or components to enable banding

Equipment or components to enable variable or controlled applications

Equipment or components to enable high clearance equipment modifications to facilitate in-crop applications

Fertilizer carts (only if used in conjunction with existing strip till units)

Companion tanks for nitrogen on a manure application system

Strip-till unit or components

No-till unit or components

Equipment for the purpose of no-till planting

Equipment for the purpose of managing the planting of cover crops

Row cleaners

Roller crimpers

Trash whippers

2. What is the potential for water erosion on your fields? (From Worksheet 1, Table 5 in your 4<sup>th</sup> edition EFP workbook or Table 3 in the online eEFP) (Select one)

1 - High

2 - Moderate

3 - Low

4 - Very Low

3. What is the potential for wind erosion on your fields? (From Worksheet 1, Table 5 in your 4<sup>th</sup> edition EFP workbook or Table 3 in the online eEFP) (Select one)

1 - High

2 - Moderate

3 - Low

4 - Very Low

**Full Name:** \_\_\_\_\_

**FBRN:** \_\_\_\_\_

ESIM-PD-J

4. Which description fits the topography of your farmstead sites that will be impacted by this project? (Select one)

Complex and/or steep (slope classes E,e,F,f; greater than 5%)

Gentle or undulating (slope class C,c,D,d; 2-5%)

Gently sloping with simple one-direction slopes (slope class B; less than 2%)

Generally flat (slope class A, B; less than 2%)

5. Do you have evidence of sheet and/or tillage erosion? (From Worksheet 15, Question 4 in your 4<sup>th</sup> edition EFP workbook) (Select one)

Subsoil is exposed on knolls/hilltops - soil is often lighter in colour and is harder to till. Hilltops may be stonier than the rest of the field **OR** crop growth and yield are greatly reduced on knolls or side slopes

Subsoil is exposed on some knolls/hilltops - soil is often lighter in colour and is harder to till. Hilltops may be stonier than the rest of the field **OR** crop growth is reduced on knolls or side slopes and yield is reduced on a small portion of the field

Subsoil is not exposed on knolls/hilltops - soil is similar in colour to the rest of the field, **and** slight difference in crop growth or yield compared to rest of the field

Subsoil is not exposed on knolls/hilltops - soil colour is consistent across field, **and** crop growth and field are uniform across the field

6. What is your current amount of tillage? (From Worksheet 15, Question 15 in the 4<sup>th</sup> edition EFP workbook) (Select one)

More than 4 passes

3 to 4 passes

1 or 2 passes **OR** up to 1 year in 3 of conservation tillage with no-till in the remaining years

No till system **OR** tillage/planting systems that disturb no more than 1/3 of soil surface yearly

7. How many acres will the modified equipment be used on in a typical cropping season? (Select one)

1 to 50

51 to 100

101 to 200

201 to 500

More than 500

**Full Name:** \_\_\_\_\_ **FBRN:** \_\_\_\_\_

## Step 7: Additional Funding for Systems Approach

This section is for applicants who would like to be considered for the Systems Approach Funding. To be considered, you must show how the project you are applying for will be complemented or enhanced by the on-going maintenance of previously implemented best management practices (BMPs). If this applies to you, please answer the questions for at least 3 of the BMPs below. If you provide satisfactory answers for at least 3 BMPs, you may receive an additional 5 percent in cost-share funding.

NUTRIENT MANAGEMENT AND SOIL HEALTH PLANNING	
What year did you complete at least one of the following plans:  Crop Nutrient Plan Nutrient Management Plan Riparian Health Assessment Soil Erosion Plan Water/Wastewater Management Plan	
What type of advisor did you use for your planning?	
Does the plan contribute to your ongoing production practices?	Yes No
What township was the plan implemented in?	
COVER CROPS	
Do you use cover crops annually?	Yes No
If no, what was the most recent year you used cover crops?	
How many acres do you use cover crops on annually?	acres owned acres rented
Have you used a cover crops species that flowers?	Yes No
If so, did you allow the cover crops to flower before termination?	Yes No
Are your cover crops typically left in the field over winter?	Yes No
What township was this implemented in?	
RIPARIAN BUFFER STRIPS	
What is the length and width of your riparian buffer strip?	metres length metres width
What year did you plant your most recent buffer strip?	
What township was this implemented in?	

<b>WINDBREAKS AND WINDSTRIPS</b>	
How many acres of fields are protected by windbreaks/wind strips: (e.g., 50 acre field with windbreaks = 50 acres)	acres owned acres rented
What year did you last plant a windbreak or wind strip?	
Do the plants in the windbreak or wind strip provide food sources (such as flowers), nesting sites or host plants for pollinators?	Yes No
Do you perform annual maintenance on your windbreak(s)/wind strip(s)?	Yes No
What township was this implemented in?	
<b>FRAGILE LAND RETIREMENT</b>	
Please indicate the number of acres of fragile land you have retired in the last 5 years	acres
Do the plants on your retired fragile land provide food sources (such as flowers), nesting sites or host plants for pollinators?	Yes No
What township was this implemented in?	
<b>STRUCTURAL EROSION CONTROL</b>	
When was the erosion control structure implemented?	
Was the erosion control structure designed by an engineer?	Yes No
What township was this implemented in?	
<b>NUTRIENT RECOVERY FROM WASTEWATER OR WASH WATER</b>	
How many nutrient unit equivalents do you contain or manage?	
How many litres of water are treated and/or recycled?	
What year was the water recovery system installed in?	
What township was this implemented in?	

<b>TILLAGE AND NUTRIENT APPLICATION EQUIPMENT MODIFICATIONS</b>	
How many acres are under no-till practices?	acres owned acres rented
How many years have no-tillage practices been implemented?	
How many acres are under strip-till practices?	acres owned acres rented
How many years have strip-tillage practices been implemented?	
Do you have 3 or more crops in your rotation?	Yes No
What township was this implemented in?	
<b>EQUIPMENT MODIFICATIONS TO REDUCE SOIL COMPACTION</b>	
Do you have an on-the-go tire inflation system?	Yes No
If yes, when was the system installed?	
Do you use high flotation tires to reduce soil compaction?	Yes No
If yes, how many acres are impacted through use of this equipment?	acres owned acres rented
What township was this implemented in?	
<b>ADDING ORGANIC AMENDMENTS TO SOIL</b>	
How many acres do you apply organic amendments to?	acres owned acres rented
What type of material do you apply to your fields? (Check all that apply)	Manure Biosolids Compost Anaerobic digestate Other, specify:
Is adding organic amendments a regular annual practice for your farm?	Yes No
If no, what was the most recent year you used this practice?	
What township was this implemented in?	

<b>EQUIPMENT MODIFICATIONS TO IMPROVE MANURE APPLICATION</b>	
How did you modify equipment to better apply organic amendments? (Check all that apply)	Direct injection Below canopy Incorporation or pre-tillage Better rate and flow accuracy Safety controls and monitoring
What was the most recent year you modified equipment for the application of organic amendments?	
Since the equipment was modified, has it been used in each year of production?	Yes No
How many acres are impacted by the use of this equipment	acres
What township was this implemented in?	
<b>MANURE STORAGE IMPROVEMENTS</b>	
Has increasing storage capacity helped reduce soil compaction by allowing you to apply manure at the right time?	Yes No
Has increasing storage capacity helped to eliminate the need to spread manure on frozen or snow-covered ground?	Yes No
What year did you increase your manure storage capacity to a minimum of 240 days?	
Did increasing storage capacity allow you to increase nutrient use efficiency?	Yes No
What township was this implemented in?	
<b>RUNOFF CONTROL FOR LIVESTOCK FACILITIES</b>	
Has a livestock yard been roofed or a covered yard been built within the last 5 years to prevent runoff?	Yes No
Have you installed any of the following within the last five years?	Engineered livestock runoff vegetated filter strip Constructed wetland
Have impermeable surfaces and concrete curb walls been installed or included to direct runoff to storage or treatment areas?	Yes No
Did you create an upstream diversion around existing farmyards? (e.g., surface water diversions, berms, surface inlet [catch basin], eaves troughs on existing livestock buildings to divert clean water from entering the livestock yard)	Yes No
Did you build storage for runoff or silage leachate?	Yes No
Did you create observation and shut-off stations and/or plug tile drains within 15 meters of livestock facilities	Yes No
How many nutrient units are managed by runoff control?	
What township was this implemented in?	