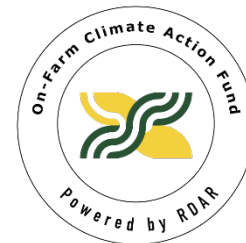


NITROGEN MANAGEMENT – FERTILIZERS



The RDAR On-Farm Climate Action Fund (OFCAF) program supports the adoption of new Beneficial Management Practices (BMPs) that improve nitrogen (N) fertilizer use efficiency. Improved N-fertilizer use efficiency decreases the opportunity for losses of N, such as nitrous oxide (N₂O), a greenhouse gas, nitrate runoff and leaching, or loss through ammonia emission. OFCAF applicants may choose some or all the BMPs listed below and other BMPs related to Nitrogen Management, Cover Cropping, or Rotational Grazing. Costs of multiple new BMPs within each of the three activity categories can be combined to a maximum total grant payment of \$100,000 from all OFCAF funding sources for the period April 1, 2022, to March 31, 2028.

The BMPs supported by OFCAF must be new to your farm or field. Applicants may request funding to support eligible practices listed in the [OFCAF Program Guide](#). Please outline how you will apply these practices on your farm using the BMP Action Plan on page 3 of this form, including labelled maps that show legal land descriptions (LLDs), and field boundaries on an aerial photo or imagery. Any method of outlining and labelling can be used, as long as the fields are visible beneath. The [Guide to Locating and Labelling BMP Action Plans](#) provides further details. Your completed BMP Action Plan must be recommended by a qualified third-party adviser who is a Professional Agrologist (PAg) or Certified Crop Advisor (CCA); please reference the [Guide to Accessing Agricultural Recommendations in Alberta](#). Your BMP Action Plan must be approved **in writing** by RDAR to be eligible for OFCAF funding.

Please note: Invoices and proof of payment must be after April 1, 2026 and you must receive RDAR's written approval of your application. Paid invoices must include Legal Land Descriptions (LLDs) of approved project fields and with proof of payment by November 30, 2026. Photographs with date stamps and GPS coordinates are required to document conditions before and after completing your project.

ELIGIBLE BENEFICIAL MANAGEMENT PRACTICES

1. Nitrogen stabilizer products and Environmentally Smart Nitrogen (ESN)

- Nitrogen stabilizer products can improve N-fertilizer use efficiency by slowing the conversion of urea to ammonium and the conversion of ammonium to nitrate.
 - Urease inhibitors¹ help to allow sufficient time for rainfall or irrigation to move urea into the soil and reduce the risk of N-losses through ammonia volatilization. Urease inhibitors can also decrease ammonia volatilization when N-fertilizer is banded at less than 3-inch depths.
 - Nitrification inhibitors² slow the conversion of ammonium to nitrate (nitrification), helping to reduce N- losses by runoff and leaching as well as by nitrous oxide emissions.
 - **Dual** inhibitor products listed below provide both urease and nitrification inhibition and are the only products that qualify for OFCAF funding.
- ESN (Environmentally Smart Nitrogen) is a polymer-coated urea fertilizer product designed to gradually release urea in moist soil conditions. It is often applied in combination with straight urea, with the ESN gradually releasing a portion of the N-fertilizer following application. A maximum of \$4,800 in 2026 is an eligible cost to cover the average increase of \$160/MT for ESN compared to urea at the time of purchase. The ESN maximum is achieved with the purchase of approximately 30 metric tonnes or 66,138 lbs of product.
- Only applies if the practice is new to the farm or new to the field
- It must be a **dual** inhibitor product

Eligible products include:

Dual Urease and Nitrification Inhibitor Products					Fertilizers
Active Stabilizer Plus	ArmU Advanced	SylLock Plus	Tribune	Excelis Maxx	Triple Kick (38% actual N)
NEON Soil	NEON Surface	NEON Air	Lynx	Nlock Advance	Super U (46% actual N)
Trident V	Nitrolizer Duo	N-Forced Dry Duo	Secure	Vault 15/15	
Eclipse Plus	Eclipse ND				

¹ [Urease Inhibitors](#). Nutrient Source Specifics. IPNI publication No. 25. NSS-25 Urease Inhibitors.pdf (ipni.net)

² [Nitrification Inhibitors](#). Nutrient Source Specifics. IPNI publication No. 26. NSS-26 Nitrification Inhibitors.pdf (ipni.net)

- Only the increased cost per pound of actual N treated with N-stabilizer product(s) is eligible. Amounts treated must be clearly specified on your invoice.
- ESN has a maximum eligible amount of \$4,800 per applicant for 2026, based on the average increased cost for ESN compared to urea. In consultation with the industry, RDAR has estimated the extra cost to be \$160 per metric tonne in spring 2026. This value may be adjusted for seasonal market premiums for ESN over urea.
- Applying both ESN and dual inhibitors on the same land area is **not** an eligible cost since the emissions reductions gained for each of the practices individually are higher than if they are applied together.

2. Shifting from broadcast to banding or side dressing N-fertilizer

Moving N-fertilizer application from broadcast to banding before or during the seeding of annual crops improves N-use efficiency and is considered a BMP for N-fertilizer application. Side dress rather than broadcast application for row crops is also a BMP to improve N-use efficiency for row crop systems.

Guidelines and eligible costs:

- This only applies to farms or field situations where the routine practice is broadcast, and the shift is to a banding or side-dressed application method for N-fertilizer
- Eligible costs include:
 - Custom fertilizer banding or side dressed application from a third-party operator³
 - Equipment rental costs (for project acres only, does not include lease-to-purchase arrangements)
 - The maximum eligible amount for changes from broadcast to either banding or side dressing N fertilizer is \$15,000 per applicant.
 - Spring banding only (no Fall banding).

3. Split application of N-fertilizer

Split application refers to applying an additional portion of the N-fertilizer needed following crop emergence to better match nutrient availability with crop uptake during the growing season. This is especially the case with long-season crops like corn but is also common with potatoes and other row crops where side dressing is the preferable method for split N-fertilizer application. Winter cereals are another situation where split application is a common practice, with a portion of the N-fertilizer applied at seeding and the remainder in spring after the winter cereal resumes growth. In-crop, surface-applied urea (46-0-0) or UAN (28-0-0) must be combined with both a urease and nitrification inhibitor to decrease the risk for N-loss. Single foliar application mid-season is ineligible.

Guidelines and eligible costs:

- Only applies to farms or field situations where split application of N-fertilizer is not a routine practice
- Urea or liquid UAN fertilizer must be combined with a dual N-fertilizer inhibitor (see list of eligible products in the Nitrogen inhibitor section). The increased cost of the dual inhibitor is eligible for reimbursement.
- Eligible costs include:
 - Custom fertilizer application from a third-party operator³
 - Equipment rental costs (for project area only, does not include lease-to-purchase arrangements)
 - Diagnostic testing for in-season rate adjustments, e.g., soil and tissue testing at an accredited lab. Please apply using the [Nitrogen Management - Soil Testing and Mapping Template](#) available on the OFCAF website.

4. Increasing perennial legumes in annual crop rotations (must be at least 50% legumes, up to \$85/ac for seed costs)

Another BMP to improve soil health and reduce the need for synthetic fertilizer N is to expand annual crop rotations to include perennial legumes. Nitrogen-fixing long lived legumes like alfalfa, birdsfoot trefoil, cicer milkvetch, sainfoin, clover are examples of forage species adapted to Alberta growing conditions that can be included in a crop rotation as a component of grass-legume mixes for hay or as a pure stand for hay production (e.g., alfalfa). Information about how perennial legumes can be integrated into crop rotation can be obtained from industry experts or online⁴.

Please note that land rolling and biological products, such as inoculants, and establishing pasture are not eligible costs.

Guidelines and eligible costs:

- Only fields that are currently in annual crop rotations are eligible.
- For information on improving existing perennial pastures in OFCAF, check the Rotational Grazing template and OFCAF Program Guidelines.
- The perennial legume species must be at least 50% of the forage seed mixture. Maximum of \$85/ac for seed costs
- Fall seeding must be completed by September 15th to allow adequate time for crop growth before winter.
- May include custom seeding from a third-party operator or seeding equipment rental⁵ (for project area only, does not include lease-to-purchase arrangements). Please describe in the “Other” box in the BMP Action Plan, including costs.
- If red clover is to be seeded it must be part of a perennial legume mix with a maximum of 50% red clover.

³ Allowable custom rate range for in-crop surface applied N: Up to \$12/ac; fertilizer banding: Up to \$25/ac. Rates are adapted based on information from the 2022–23 Farm Machinery Custom and Rental Rate Guide. Saskatchewan Agriculture. [Saskatchewan.ca/agriculture](https://saskatchewan.ca/agriculture); and Alberta Custom Rates 2017 Custom Rates 2017 – Seeding | [Alberta.ca](https://alberta.ca).

⁴ Perennial Forage Establishment in Alberta. Agdex 120/22-3. Alberta Agriculture, Forestry and Rural Economic Development. 2005. Perennial Forage (gov.ab.ca)

⁵ Eligible custom rate range for drill or direct seeding: Up to \$30/ac; for broadcast: Up to \$12/ac. In-kind labour by the applicant is not eligible. Rentals are eligible for the area and duration of the project only (no lease or rent-to-own). Other important details about ineligible BMPs and cost limits are listed in the [OFCAF Program Guide](#) and the following table.

5. Drones are eligible under Nitrogen Management when used with activities above Split application of N-fertilizer or Increasing perennial legumes in annual crop rotations (must be at least 50% legumes, up to \$85/ac for seed costs)

Split Application of N-fertilizer or Seeding Perennial Legumes with Drone – Quick Facts

- Maximum drone reimbursement: 50% up to \$20,000
- Minimum area to be seeded: 80 acres
- Seed cost cap: \$85/ac
- Drone must be purchased (not leased) with a spreader package • Valid Transport Canada pilot certificate required before applying • Video and GPS-stamped photos required for final report
- Drone spraying of pesticides is not permitted

Guidelines and eligible costs:

- New drone purchase and spreader attachment for perennial legume seed broadcasting through an authorized dealer. Must also be applying for a minimum of 80 acres of perennial legume crop as per the terms and conditions.
- You must have an existing drone pilot certificate relevant to the drone you are applying to purchase to be eligible.
- Note: if you do not seed the perennial legume crop or provide an eligible invoice and proof of payment for the Final Report, the drone will not be eligible for reimbursement.
- Drones must have a maximum take-off weight (MTOW) of 150 kg or less
- Standard power supplies and batteries (up to 3) for drones are included in the base package.
- Maximum of 1 drone purchase across all program years 2026-2028 and all BMPs
- New drone purchase and spreader attachment for split application of N-fertilizer, applies to granular fertilizer only (must be combined with both a urease and nitrification inhibitor to decrease the risk for N-loss). Must also be applying for a minimum of 80 acres of split application of N-fertilizer as per the terms and conditions.
- Note: if you do not complete the split application of N-fertilizer or provide an eligible invoice and proof of payment for the Final Report, the drone will not be eligible for reimbursement.
- Please note that the cost share for a Drone used to seed a perennial legume crop or for split application of N-fertilizer is 50%, up to a maximum reimbursement of \$20,000.

Ineligible costs:

- Drones purchased for spraying.
- Leasing costs of a drone and/or supporting equipment.
- Drones with a maximum take-off weight (MTOW) greater than 150 kg. For example, DJI AGRAS T100
- Drones purchased without a spreader package.
- Drone registration fee and pilot certification fee.

NITROGEN MANAGEMENT FERTILIZERS - BMP ACTION PLAN

Please note: all costs must exclude GST. Use extra forms to add information and identify individual fields as needed.

Applicant Name:							
New BMP Objective – check or fill (Y/N) as appropriate:							
Improve N source (product)		Improve N placement (banding or side dress)		Improve N timing (split in-crop)*		Confirm BMP is on annual cropland	
Are BMPs new to the field?			Yes	No	Are BMPs new to the farm?		
					Yes	No	
INCREASED COST OF NEW N PRODUCT**				Planned N use date:			
Inhibitor Brand Name:		Rate (L/metric tonne of urea or L/metric tonne of UAN Solution):		Extra Cost (\$/L or \$/MT)**:			
Field	Seeded Area	N Source	N Source Rate	Total BMP	Increased Cost**		
(LLD)	(ac)	(Urea, UAN 28, ESN, etc)	(lb/ac or US gal/ac)	(lbs or US gal)	(\$/field)		
Total Area		A) Total Product Cost** \$					
COST OF SEED MIX (at least 50% legume, up to \$85/ac)*** AND CUSTOM APPLICATION OR EQUIPMENT RENTAL^							
Planned Seeding Date (mo/yr):			Is each field listed below currently in annual crop?			Yes	No
Field	Seeded Area	Cost per acre for seed***	Seed Mix (%)	Cost of Custom Seeding or Equipment Rental^	Cost per Field		
(LLD)	(ac)	(\$)	(type)	(\$)	(\$)		
Total Area		B) Total Cost of Seed, Custom Application or Equipment Rental \$					
Is this Plan recommended by a Professional Agrologist (PAg) or Certified Crop Advisor (CCA)?			Yes	No	Have you included a labelled map?		
					Yes	No	
Name:		PAg/CCA:	Phone number:		Date:		
			Email:				
C) Cost of Other and/or PAg or CCA costs ^^ \$							
Total Cost of Project (A + B + C) \$							

*Split (in crop) – If surface applied, UAN or urea must include dual N stabilizers. **Eligible costs for dual inhibitors and for ESN (the extra cost of \$160/metric tonne(1000 kg) to a maximum of \$4,800 in 2026). Note: Applications of ESN and dual inhibitors on the same acres are not eligible costs. ***Field must currently be in an annual crop rotation; seed must be 50% legume, \$85/ac maximum for seed cost. ^Custom rate for banding: up to \$25/ac to a maximum of \$15,000 in 2026; for in-crop surface applied N: up to \$12/ac; Seeding perennial legumes - for drill or direct seeding: up to \$30/ac; for broadcast: up to \$12/ac. In-kind labour and lease or rent-to-own arrangements are not eligible costs. ^^ May include the cost of BMP Action Plan recommendation of up to 10% of the total cost of all eligible BMPs, to a maximum of \$2,000 per applicant (total overall years of the OFCAF program, 2022 to 2028).

APPENDIX: SPLIT APPLICATION OF N-FERTILIZER OR SEEDING PERENNIAL LEGUMES IN ANNUAL CROP ROTATIONS WITH DRONE APPLICATION

Drones or Remotely Piloted Aircraft Systems (RPAS)

Transport Canada regulates drone registration and pilot certification through the [Drone Management Portal](#).

Drone pilots must follow specific rules for each type of operation, as well as the [basic safety rules that apply to all drones](#).

Eligibility Checklist:

	Yes	No
I have read Transport Canada's Drone regulations. Drone pilots must follow specific rules for each type of operation, as well as the basic safety rules that apply to all drones .		
I have an existing drone pilot certificate to fly the proposed drone, which is being purchased as required by regulations and have included a copy in the application.		
The drone registration number will be clearly marked on the drone and reported on your Final Report, with a picture.		
I understand that leasing a drone is not an eligible expense.		
I agree to a site inspection to see the drone and the seeded field.		
I understand that I must also apply for a minimum of 80 acres of perennial legume seed and/or 80 acres of split application of N-fertilizer as per the terms and conditions. If you do not seed the perennial legume crop and/or complete the split application of N-fertilizer, the drone will not be eligible.		
I understand that I will need to submit eligible invoices and proof of payment for the seed purchased for this project and/or N-fertilizer (must be combined with both a urease and nitrification inhibitor to decrease the risk for N-loss) .		
I will submit a video and GPS-stamped pictures of the practice being completed by the drone. This is a requirement for the Final Report to be eligible for reimbursement.		
I understand that the cost share for a Drone used for split application of N-fertilizer and/or to seed perennial legumes is 50% up to a maximum reimbursement of \$20,000.		
Drones must have a maximum take-off weight (MTOW) of 150 kg or less		

Please describe using a minimum of 50 words:

1. The drone manufacturer, model and specs, including the maximum take-off weight for spreading perennial legume seed or split application of N-fertilizer.
2. Your seeding plan with the drone (number of species in the perennial legume mix, seeding rate, time of application) or the plan for the split application of N-fertilizer.
3. How do you plan to seed multiple seed sizes with the drone?
4. How many passes will you be making to seed the perennial legume crop or for the split application of N-fertilizer?

REGULATORY WARNING — SPRAY DRONES IN CANADA

This section explains your legal responsibilities and confirms that RDAR does not authorize or assume liability for drone use.

⚠ STOP — READ BEFORE YOU APPLY

- Drone spraying of pesticides is illegal unless the product label specifically says “Drone/RPAS use.” Using pesticides off-label violates the Pest Control Products Act.
- As of February 2026, no agricultural in-crop pesticides are approved for drone application in Canada. This application does not authorize unapproved spraying.
- You must comply with Transport Canada rules for drone operation and any provincial/territorial pesticide-appliator requirements.

TERMS & CONDITIONS DRONE (RPAS) COMPLIANCE, RELEASE & INDEMNITY COMPLIANCE, PROHIBITED USES, ASSUMPTION OF RISK, RELEASE AND INDEMNITY FOR DRONE USE

1. **Compliance With Law and Labels.** The Applicant represents, warrants, and covenants that it will comply with all applicable laws, regulations, and permits relating to the operation of drones (Remotely Piloted Aircraft Systems, “Drone”) and the use and application of pest control products, including the Pest Control Products Act (Canada) and related regulations. Without limiting the foregoing, the Applicant shall not use any drone to apply a pesticide unless the current, Health Canada-approved product label expressly authorizes application by “Remotely Piloted Aircraft System (RPAS)” or “drone,” and the Applicant follows all label directions, limitations and drift-mitigation requirements. Use of a pesticide contrary to label directions is illegal.
2. **No Authorization or Endorsement.** RDAR and AAFC do not authorize, endorse, permit, or encourage the use of drones for any off-label or unapproved pesticide application. Funding, equipment support, or participation in any program or project under this application must not be construed as authorization for unapproved pesticide uses.
3. **Assumption of Risk.** The Applicant acknowledges that any off-label, unapproved, or otherwise non-compliant use of drones for pesticide application may pose safety, environmental, market-access, and legal risks, including potential fines or enforcement action, and voluntarily assumes all such risks.
4. **Release and Hold-Harmless.** To the maximum extent permitted by law, the Applicant releases and forever discharges RDAR, AAFC, and their respective directors, officers, employees, agents, contractors, and funders (collectively, the “Released Parties”) from any and all claims, losses, liabilities, penalties, damages, costs, and expenses arising from or relating to the Applicant’s (or its personnel’s or contractors’) use or misuse of drones, including any unapproved or off-label pesticide application or other non-compliant activity. For clarity, nothing in this Release limits liability for a Released Party’s gross negligence or wilful misconduct.
5. **Indemnity.** The Applicant shall defend, indemnify and hold harmless the Released Parties from and against all claims, demands, actions, losses, fines, penalties, liabilities, damages and costs (including reasonable legal fees) arising from or relating to: (a) the Applicant’s breach of this Agreement; (b) any drone operation; (c) any pesticide application; or (d) any regulatory non-compliance, including off-label pesticide use and violations under the Pest Control Products Act.
6. **Certification & Records.** Upon request, the Applicant will promptly provide evidence of (a) valid drone registration and pilot certification under Transport Canada rules; and (b) for any pesticide application by drone, the specific product label authorizing drone use and records demonstrating compliance with label directions and any applicable provincial or territorial requirements.
7. **Breach; Remedies.** Any breach of this clause is grounds for immediate rejection, termination, or repayment of funding or equipment support (as applicable), and may be reported to the relevant authorities.

APPLICANT ATTESTATION

Label Compliance. I will not use drones to apply any pesticide unless the product label expressly authorizes drone use and I follow the label directions in full.

No Off-Label Use. I understand that off-label drone spraying is illegal under the Pest Control Products Act.

Current Status. I understand that no agricultural in-crop pesticides are currently approved for drone application in Canada.

Transport Canada Compliance. I will maintain the required drone registration and pilot certification, and provide proof upon request.

By signing below, the Applicant acknowledges and agrees to the above.

Authorized Signatory Name:

Title:

Organization:

Signature:

Date:

Map on an aerial photo or image showing the project fields, legal land locations, and field boundaries. Any method of outlining and labelling fields may be used as long as the fields are visible beneath. Further details are available in [Guide to Locating and Labelling BMP Action Plans](#).

