

OUR Update on “Carbon Premium” Corn... (from John @ Kat’s Grain)

IRS has released requirements for Fuel (Ethanol) producers to qualify for Tax benefits pertaining to the production of Climate Smart Ethanol purchased from Climate Smart corn producers (you the farmer).

Basically, the reading allows for the farmer to use “intermediary entities” (Kat’s Grain) to store the feedstock prior to delivery to the SAF producer. In our (Kat’s Grain) case, we do not have commercial storage. However, Feed Stock (corn) can be kept “on the farm”.

Kat’s Grain would be responsible to collect and distribute to SAF producer the “lengthy” documentation/guidelines required from EACH producer certifying their corn as “climate smart” and delivered quantity for EACH producer (including their ticket #’s/settlement sheets).

The Recordkeeping Requirements are quite extensive. However, with Kat’s Grain being a Crop Insurance Agency, we ALREADY HAVE the basic framework of the requirements documented (Acreage, Maps, FSA Farm #’s, Production, CLU’s, Plant Dates, etc.) The remaining info would simply be added/supplemented to the Acreage and/or Production Report to produce 1 formal document.

Bottom Line: See Implementation and Recordkeeping Requirements below. Kat’s Grain would keep the records. You (the producer) implement the practice. If interested, let us know. Helps to have ROUGH idea on “possible” bushels to commit (**someday.**) Also, if interested, consider us for crop insurance (easier for extensive record keeping.) IF an SAF Producer comes out with a program/offering we can participate in, we will communicate this to our customers.

As of now, there is NOTHING for SAF Corn and after contacting 5 large Iowa Ethanol companies about this, NO ONE still knows ANYTHING.

Thank you! We appreciate your business!

John
(see next pages)

3 BASIC Requirements: No-Till farming, Cover Crops, and Enhanced Efficiency Nitrogen Fertilizer.

Implementation Requirements (producer responsibility):

1.) No-Till¹⁰ (domestic corn and domestic soybean feedstocks) Definition: Limiting soil disturbance to manage the amount, orientation and distribution of crop and plant residue on the soil surface year-round. Annual Criteria (must be applied to the entire field):

- Residue must not be burned.
- Distribute all residues uniformly over the entire field. Removing residue from directly within the seeding or transplanting area prior to or as part of the planting operation is acceptable.
- This practice only allows an in-row soil disturbance operation during strip tillage, the planting operation, and a seed row/furrow closing device. Full-width soil disturbance is disallowed from the time immediately following harvest or termination of one cash crop through harvest or termination of the next cash crop in the rotation regardless of the depth of the tillage operation. The soil tillage intensity rating (STIR)¹¹ value must include all field operations that are performed during the crop interval between harvest and termination of the previous cash crop and harvest or termination of the current cash crop (includes fallow periods). The crop interval STIR value must be no greater than 20.

2.) Cover Crop¹² (domestic corn and domestic soybean feedstocks) Definition: Grasses, legumes, and forbs planted for seasonal vegetative cover.

Annual Criteria (must be applied to the entire field):

- Plant species, seedbed preparation, seeding rates, seeding dates, seeding depths, fertility requirements, and planting methods must be consistent with applicable local criteria and soil/site conditions.¹³
- Select species that are compatible with other components of the cropping system.
- Ensure herbicides used with crops are compatible with cover crop selections and purpose(s).
- Cover crops may be established during the fallow season prior to planting the feedstock crop, or companion planted or relay-planted into production crops.
- Must not burn cover crop residue.
- Determine the method and timing of termination to meet the grower's objective and the current NRCS Cover Crop Termination Guidelines.
- When a cover crop will be grazed or hayed, ensure the planned management will not compromise the soil health and organic matter content.
- Do not harvest cover crops for seed.
- If the specific rhizobium bacteria for the selected legume are not present in the soil, treat the seed with the appropriate inoculum at the time of planting.

3.) Enhanced Efficiency Nitrogen Fertilizer (EENF) Practice Requirements¹⁴ (domestic corn feedstocks) Definition: Enhanced nutrient use efficiency technologies are utilized to improve nutrient use efficiency, reduce risk of nutrient losses to surface and groundwater, and reduce GHG emissions. This CSA pilot applies to Land Grant University (LGU)¹⁵ and Association of American Plant Food Control Officials (AAPFCO) definitions of Enhanced Efficiency Fertilizers (EEFs). EEFs are defined by AAPFCO as “fertilizer products with characteristics that allow increased plant uptake and reduce the potential of nutrient losses to the environment (for example, gaseous losses, leaching, or runoff) when compared to an appropriate reference product.”¹⁶ For the purposes of this pilot, qualified EEFs include only Enhanced Efficiency Nitrogen Fertilizers (EENF), as nitrogen is the primary carbon intensity-relevant nutrient. The three following strategies are extracted and slightly modified from the NRCS Conservation Enhancement Activity 590A. These three strategies are acceptable for the EENF practice in the CSA pilot. The farmer must implement at least one of these three strategies to fulfill EENF requirements.

Annual Criteria (must be applied to the entire field):

- **Select at least one of the following EENF strategies for nutrient use efficiency.**

For all strategies, the EENF must serve as at least 50% of the nitrogen source for the production of the feedstock:

- **Strategy 1:** EENF that contain nitrification inhibitor products resulting in delayed nitrification processes, by eliminating the bacteria *Nitrosomonas* in the area where ammonium is to be present.

- o Materials must be defined by the AAPFCO and be accepted for use by the State fertilizer control official, or similar authority, with responsibility for verification of product guarantees, ingredients (by AAPFCO definition) and label claims.

- o Application timing, method, nitrogen source, soil texture, and tillage regime are all factors that should be evaluated to determine where nitrification inhibitors should be used. Before buying an inhibitor make sure scientific evidence backs up all claims. Producers and/or consultants should be wary of any product that does not have solid scientific data demonstrating that the inhibitor activity matches the advertised benefit.

- o EENF products must be recommended by LGU and concurred with by NRCS on all treatment acres to supply at least 50% of the pre-emergent and early post emergent LGU recommended nitrogen budget requirements for the crop(s) grown. Common chemical products used to interrupt the nitrification process include dicyandiamide (DCD) and 2-chloro-6 (trichloromethyl) pyridine.

- **Strategy 2:** EENF products that contain urease inhibitor products to temporarily reduce the activity of the urease enzyme and slow the rate at which urea is hydrolyzed.
- o Materials must be defined by AAPFCO and be accepted for use by the State fertilizer control official, or similar authority, with responsibility for verification of product guarantees, ingredients (by AAPFCO definition) and label claims.

o Application timing, method, nitrogen source, soil texture, and tillage regime are all factors that must be evaluated to determine where urease inhibitors should be used. Before buying an inhibitor make sure scientific evidence backs up all claims. Producers and/or consultants should be wary of any product that does not have solid scientific data demonstrating that the inhibitor activity matches the advertised benefit.

o EENF products must be recommended by LGU on all treatment acres to supply at least 50% of the pre-emergent and early post emergent LGU recommended nitrogen requirements for the crop(s) grown.

o Common chemical products that are known to affect urease formation are N-(n-butyl) thiophosphoric triamide (NBPT) and ammonium thiosulfate (ATS).

Strategy 3: Slow-release or controlled release formulations of nitrogen fertilizer/EENF for at least 50% of the pre-plant and/or post emergent applications.

o Use of slow-release or controlled-release nitrogen fertilizer products to improve nutrient use efficiency.

o Uncoated Nitrogen Fertilizers include: ureaformaldehyde (UF) reaction products, ureaform and methylene ureas. o Coated Nitrogen Fertilizers include: sulfur-coated fertilizers, polymer-coated fertilizers and polymer/sulfur coated fertilizers

Recordkeeping Requirements (Kat's Grain assists/keeps):

No-Till Recordkeeping Requirements Farmers must:

- Prior to implementation, document the planned crop rotation and tillage operation(s) used for each crop.
- During implementation, document any changes in crops, crop rotation, or field operations to verify the system meets the no-till practice requirements. Farmers must make management records available for unrelated party certification, demonstrating:
 - Management rotation, as implemented. Records must indicate field number(s) and location(s), planted crop(s) in sequence, planting date for each crop, harvest/termination date for each crop.
 - Field operations, as implemented, for each crop. Records must indicate field number(s) and location(s), crop, field operation, and timing of field operation (month/year).
 - Total planted acreage, harvest, and yield for crops produced using a no-till system and then sold to refiner(s) as sustainable aviation fuel feedstock. Farmers must provide, for unrelated party certification, additional documents to support the management records described above, including:
 - Records of feedstock crop seed purchase, with sufficient information to show the acquisition, type, quantity, and date of feedstock seed received (purchase receipts, seed tags, delivery receipts).
 - Records of seeding in no-till fields including dates and seeding rates.
 - Records of field locations, planted acreage, harvested acreage, and yield (Farm Service Agency (FSA) field maps or other farm maps, records of contracted field operations, harvest records).
 - Records demonstrating the amount of sustainable aviation fuel feedstock crop delivered to an elevator, miller, refiner, or other delivery point (bushels produced and receipt of sale).

Cover Crop Recordkeeping Requirements Farmers must:

- Prior to implementation, document the current planned crop rotation, cover crop information, and field operation(s) used for each crop.

- Prior to implementation, read and follow current NRCS Cover Crop Termination guidelines.¹⁷ • During implementation, document any changes in crops, crop rotation, or unharvested areas to verify the system meets the cover crop practice requirements. Farmers must provide, for unrelated party certification, documents demonstrating:
 - Management rotation, as implemented, including cover crops. Records must indicate field number(s) and location(s), planned crop(s)/cover crops in sequence, planting date for each planned crop/cover crop, harvest/termination date for each planned crop/cover crop.
 - Field operations, as implemented, for each crop. Records must indicate field number(s) and location(s), crop, field operation, and timing of field operation (month/year).
 - Cover crop mix and seeding rate, including species, variety, seed size, typical seeding depth, seeding rate (lbs./acre), percent of mix.
 - Establishment and management considerations applicable to seedbed preparation, seeding date, seeding depth, seeding method, fertilizer (as needed), weed management (as needed), termination date, termination method.
 - Total planted acreage, harvest, and yield for crops produced in rotation and sold to refiner(s) as sustainable aviation fuel feedstock. Farmers must provide, for unrelated party certification, additional documents to support the management records described above, including:
 - Records of cover crop seed purchase, with sufficient information to show the acquisition, type, quantity, and date of cover crop seed received (purchase receipts, seed tags, delivery receipts).
 - Records of field locations, planted acreage, harvested acreage, and yield (FSA field maps or other farm maps, records of contracted field operations, harvest records).
 - Records demonstrating the amount of sustainable aviation fuel feedstock crop delivered to an elevator, miller, refiner, or other delivery point (bushels produced and receipt of sale).

Enhanced Efficiency Nitrogen Fertilizer (EENF) Recordkeeping Requirements Farmers must:

- Prior to implementation, develop and document a planned nutrient budget, yield goal, and applications (pounds/acre active ingredient, nutrients must include, at a minimum, nitrogen, phosphorous, and potassium (N-P-K)).
- Prior to implementation, select one or more EENF strategies or technologies and document selection.
- During implementation, keep records to document actual nutrient applications (pounds/acre active ingredient, nutrient records must include at a minimum N-P-K). Farmers must provide management records, for unrelated party certification, demonstrating:
 - Planned nutrient budget and yield goal.
 - Actual nutrient applications (pounds/acre active ingredient, nutrients must include at a minimum N-P-K) including application date, application rate, field number(s) and location(s), and total acreage treated.
 - Total planted acreage, harvest, and yield for crops produced and sold to refiner(s) as sustainable aviation fuel feedstock. Farmers must provide, for unrelated party certification, additional documents to support the management records described above, including:
 - Records of EENF purchase, including sufficient information to demonstrate the product type and composition (receipts, photographs of product tags/labels). Include reference from the appropriate state LGU18 demonstrating that the product is recommended for the crop and geography.
 - Records of feedstock crop seed purchase, with sufficient information to show the acquisition, type, quantity, and date of cover crop seed received (purchase receipts, seed tags, delivery receipts).
 - Records demonstrating field locations, planted acreage, harvested acreage, and yield (FSA field maps or other farm maps, records of contracted field operations, harvest records).
 - Records demonstrating the amount of sustainable aviation fuel feedstock crop delivered to an elevator, miller, refiner, or other delivery point (bushels produced and receipt of sale).

Other “General Requirements” (Kat’s Grain assist)

General Requirements

Farmers must provide an attestation of implementation, in substantially the same form as the model certificate in Appendix B of IRS Notice 2024-37, to the SAF producer. This attestation must include:

- Agricultural/farm company name, address, and contact information.
- Farm owner name, address, and contact information.
- Type and amount of feedstock produced, including units.
- A declaration that the farmer has ownership or operational control of the land enrolled. Where land is leased, the lessee must sign the declaration indicating that they have operational control.
- A declaration that the applicable CSA practices have been implemented simultaneously according to the implementation guidelines.