Improving nutrient uptake efficiency and reducing risk of nutrient losses to surface water

Montana Clarification (by strategy/technology)

A. Enhanced efficiency phosphorus fertilizers will not qualify for this enhancement.

D. The 50% nitrogen applied after crop emergence or pasture green up can be applied in more than one application. It does not have to be all at once. For winter wheat, a starter fertilizer will be used in the fall (no more than 50%) with the remaining fertilizer applied in the spring 30 days after green up. MSU recommends no more than 20 lbs. of starter fertilizer placed next to the seed.

Montana Specifications (by strategy/technology)

For all strategies and technologies:

1) Current soil test no more than 12 months old.

2) All fertilizer guidelines and special conditions in “Fertilizer Guidelines for Montana Crops” Montana State University Extension Service Publication # EB 161(1) should be followed. [https://store.msuextension.org/Departments/Agriculture-Topic-Categories/Fertilizers.aspx?sortorder=6&page=3](https://store.msuextension.org/Departments/Agriculture-Topic-Categories/Fertilizers.aspx?sortorder=6&page=3)
A. Enhanced Efficiency Fertilizer (EEF) Products for Montana

**Controlled Release and Slow Fertilizers for Montana**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Affected Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymer-coated (PCU)</td>
<td>Release</td>
</tr>
<tr>
<td>Sulfur-coated</td>
<td>Release</td>
</tr>
<tr>
<td>Polymer + Sulfur-coated</td>
<td>Release</td>
</tr>
<tr>
<td>Urea formaldehyde</td>
<td>Release</td>
</tr>
<tr>
<td>Methylene Urea</td>
<td>Release</td>
</tr>
<tr>
<td>Methylene Urea + Triazone</td>
<td>Release</td>
</tr>
<tr>
<td>Triazone</td>
<td>Release</td>
</tr>
</tbody>
</table>

*MT Specification for controlled release and slow fertilizers:*

For fall planted crops such as winter wheat 50% of the actual nitrogen applied must be a controlled/slow release fertilizer. For spring planted cool season crops such as spring wheat a minimum of 25% of the actual nitrogen must be a controlled/slow release fertilizer. For spring planted warm season crops such as corn or sugar beets a minimum of 50% of the actual nitrogen must be a controlled/slow release fertilizer. Split applications of nitrogen fertilizers are allowed as long as the minimum percent of controlled/slow release fertilizer applied are met and a minimum of 25 lbs/acre of actual nitrogen as a controlled/slow release fertilizer is applied. Because this technology is for pre-emergent and early post emergent nitrogen fertilizer, *application of liquid nitrogen products applied later in the growing season do not apply to this enhancement.*

F. In Montana phosphorus must be injected/banded, not incorporated.


3. This may not be a complete list as new products or formulations are being developed. For approval of other products, contact the NRCS Area Office, who will then consult with the State Agronomist. Written approval of new products will be obtained prior to use (email is acceptable) and should be attached to this supplement.
Incompatible Enhancements

This enhancement is not compatible with any other 590 associated enhancements.

Documentation Requirements (for all strategies/technologies)

1. A map showing acres where the activities are applied.
2. Planned nutrient budget, crop, yield goal, and application rates (lb/ac of active ingredients- NPK).
3. Actual application rates (lb/ac of active ingredients- NPK), application dates, crop yield, and planting date.
4. Soil tests no more than 12 months old, by field.

As needed:

1. Enhanced efficiency product used, including name and formulation of product.
2. Date of crop emergence (for D- split nutrient application).
3. Manure analysis results.

I acknowledge that I have read and understand all that is required for the implementation of this CSP Enhancement Activity.

__________________________________________________________________________

Contract participant     Date