

AGENDA
Terms & Definitions Committee
AAPFCO 2014 Annual Meeting
San Diego, CA
February, 2014

CALL TO ORDER

- 1. Welcome, roll call of committee members and introduction of guests.**
Facilitator: April Hunt
- 2. Action Item:** Agenda review and approval
- 3. Action Item:** Annual Meeting Report Review and Approval
- 4. Non Action Items**

Items approved to move to official status at Annual meeting 2013 (to be voted on by membership at annual 2014)

- N-58 Ammonium Ferric Sulfate** – also known as Ferric (III) Ammonium sulfate $\text{NH}_4\text{Fe}(\text{SO}_4)_2 \cdot 12 \text{H}_2\text{O}$, which is a double salt of ferric sulfate and ammonium sulfate.
- P-38 Superphosphate, Enriched** - is a mixture of single super phosphate and triple super phosphate, made by treating phosphate rock with both sulfuric acid and phosphoric acid.
- Ca-23 Calcium Chloride** - Calcium Chloride and its hydrated forms, is the salt of calcium and chloride and has the formula CaCl_2 .
- Co-2 Cobalt Sulfate** - Cobalt Sulfate and its hydrated forms, is a cobalt salt of sulfuric acid. Its most common hydrated forms have the formula of $\text{CoSO}_4 \cdot 7\text{H}_2\text{O}$ and $\text{CoSO}_4 \cdot \text{H}_2\text{O}$

Items voted to remain in tentative status at Annual meeting 2013(to be voted on by membership at annual 2014)

- N-52 Kapok Seed Meal** - *will be deleted once Oilseed meal becomes official*
- T-88 Linseed Meal** - *will be deleted once Oilseed meal becomes official*
- T-71 Slow Release** – *pending SRFC recommendation **
- T-72 Stabilized** - *pending SRFC recommendation**
- T-84 Enhanced Efficiency Reference Product** - *pending SRFC recommendation**
- N-57 Ammonium Ferrous Sulfate** *N-57 and F-19 need to be worked on together*
- N-56 Calcium Nitrate-Urea** – *returned to workgroup*
- * SRFC approved these definitions to move to official.*

New definitions or terms recommended to tentative status at Annual meeting 2013(to be voted on by membership at annual 2014)

- N-?** **Feather Meal** - Consisting of ground and processed bird feathers, a byproduct of poultry processing.
- N-?** **Wheat Middlings** – Consisting of fine particles of wheat bran, wheat shorts, wheat germ, wheat flour and offal obtained in the process of commercial wheat milling.
- N-13** **Dried Blood** - Also known as Blood Meal, is the collection of blood of slaughtered animals, dried and ground and containing not less than twelve percent (12%) nitrogen.
- N-20** **Tankage** - Also known as Meat & Bone Meal, is the rendered, dried, and ground by-product, largely meat and bone from animals (slaughtered or that have died otherwise)

5. Action Items

New definitions or terms approved as tentative at annual 2013 membership meeting (waiting further action) move to official, stay tentative, delete

- T-94** **Amino acids** - are a recognized source of nitrogen and the basic structural units of proteins. They consist of an amino group, a carboxyl group, hydrogen atoms, and a distinctive side group.
- T-97** **Basalt** - is a common fine-grained igneous volcanic rock. In it's finely ground state where 20 percent passes a 100 mesh sieve. It is a source of secondary and micro nutrients.
- N-60** **Urea Ammonium Nitrate Solution (UAN-x)** - is a commercial liquid product composed of a mixture of ammonium nitrate, urea and water. The Guaranteed Total Nitrogen content of the product shall be denoted by 'x'. Typical UAN products contain between 28-32% Total Nitrogen.
- T-61** **Oilseed meal** - is the product remaining after extracting most of the oil from whole oilseed. It is a source of slowly available nitrogen. The definition is used by prefixing the term "meal" with the name of the whole oilseed from which the meal is derived (e.g. soybean meal, cottonseed meal, mustard seed meal, etc.)
- T-95** **Zeolites** - are micro porous, aluminosilicate minerals which possess a high cation exchange capacity. Their uses include Soil Amendments.
- T-96** **Herbivore Insect Frass** - is the excreta of plant-eating insects which is produced in a controlled environment and consist primarily of the digested material passed by plant-eating insects. It is a source of Nitrogen, Phosphate and Potash.

- T-98 Nitrapyrin [2-chloro-6-(trichloromethyl) pyridine]** - inhibits Nitrosomonas spp. of soil bacteria that slow the conversion of ammonium forms of nitrogen to nitrite as part of the nitrification cycle.
- T-93 Soluble Silicon** – is that portion of the silicon contained in fertilizer or fertilizer materials that is soluble in 0.94 Molar Sodium Carbonate and 0.20 Molar Ammonium Nitrate by a validated or approved method, which is a measure of available silicon.
- T-93 Available Silicon (Si)** is the soluble portion of the total silicon in a fertilizer known as monosilicic acid $[\text{Si}(\text{OH})_4]$. *Changed from BSC to T*

6. Old Business

- N-56 Calcium Nitrate-Urea** - is the compound formed by the reaction of Calcium Nitrate and urea ammonium nitrate $\text{Ca}(\text{NO}_3)_2 \cdot 4\text{CO}(\text{NH}_2)_2$. The compound contains approximately 33% nitrogen and 9% calcium. - *sent back to workgroup for re-evaluation*

Discussion – The description of where the product comes from does not explain ammonium.

Recommend to send it back to the workgroup.

- N-57 Ammonium Ferrous Sulfate** - also known as Ferrous (II) Ammonium Sulfate $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2$, which is a double salt of ferrous sulfate and ammonium sulfate

Proposed - also known as Ferrous (II) Ammonium Sulfate $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$, which is a double salt of ferrous sulfate and ammonium sulfate.

Discussion –

- F-19 Ferrous Ammonium Sulfate** – is a double iron (II) salt, $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ resulting from the ammonization of sulfuric acid containing iron. Anhydrous Ferrous ammonium sulfate has the formula $\text{Fe}(\text{SO}_4) \cdot (\text{NH}_4)_2\text{SO}_4$ -

Proposed - is a double salt of ferrous sulfate and ammonium sulfate, which is also known as Ammonium Ferrous (II) Sulfate $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$...see N-57

Discussion –

- T- ? Biostimulant** – “Biostimulants - Substances, including micro-organisms, that are applied to plant, seed, soil or other growing media that may enhance the plant's ability to assimilate applied nutrients, or provide benefits to plant development. Biostimulants are not plant nutrients and therefore may not make any nutrient claims or guarantees.”

Discussion – Pending Workgroup Recommendation

The AAPFCO Biostimulant Working Group has been working on this definition below. This definition is identical to the European definition.

<http://www.biostimulants.eu/about/what-are-biostimulants-benefits/>

Plant biostimulant means a material which contains substance(s) and/or microorganisms whose function when applied to plants or the rhizosphere is to stimulate natural processes to benefit nutrient uptake, nutrient efficiency, tolerance to abiotic stress, and/or crop quality, independently of its nutrient content”.

Discussion –

T-? **Biochar** - is a solid material obtained from thermochemical conversion of biomass in an oxygen-limited environment that may be added to soils with the intention to improve soil functions.

Discussion – Applicant could not attend the meeting. In conversations with the applicant they promised to provide in writing a response to the review workgroups concerns, which were not provided. Item tabled until the midyear meeting.

Received memo from the International Biochar Initiative on October 29-2013 to address concerns

7. **New Business** – Proposed Definitions

Humic Substances - the major organic constituents of soil organic matter and the aquatic environment, consisting of complex heterogeneous mixtures of carbon-based substances formed by biochemical reactions during the decay and transformation of plant and microbial remains. They are primarily composed of three main fractions, called humic acids, fulvic acids, and humin, which are operationally defined by their solubility in dilute alkali and acid solutions. High concentrations of humic substances are commercially harvested from terrestrial deposits of Leonardite, oxidized lignite, oxidized sub-bituminous coals, humalite, carbonaceous shales, peat, and sapropel.

Fulvic Acid Fraction - the portion of humic substances that are soluble in both alkali and acid aqueous solutions.

Hydrophobic Fulvic Acids - are the portions of humic substances that are soluble in both alkali and acidic aqueous solutions that are separated from non-humic aqueous substances in the fulvic acid fraction by selective adsorption onto a nonionic macroporous acrylic ester resin of moderate polarity i.e. DAX-8 resin, at low pH.

8. **Next Steps** - Assignments and Agenda Items for next meeting