AGENDA

Terms & Definitions Committee

AAPFCO 2013 Midyear Meeting

New Orleans, LA

February 18, 2013

CALL TO ORDER

1. **Welcome, roll call of committee members and introduction of guests.**
   Facilitator:

2. ***Action Item*:** Agenda review and approval

3. ***Action Item:*** Annual Meeting Report Review and Approval

4. **Old Business**

N-? **CALCIUM AMMONIUM NITRATE** -is a mixture of ammonium nitrate with calcium nitrate or limestone with a nitrogen range of 17-27%." For labeling purposes, this product must be listed in the derived from statement as "Ammonium Nitrate and Calcium Carbonate or Ammonium Nitrate and Calcium Nitrate"-

Discussion – Pending Workgroup Recommendation

T- ? **Biostimulant** – A material that, when applied to a plant, seed, soil or growing media - in conjunction with established fertilization plans, enhances the plant's nutrient use efficiency, *or* provides other direct or indirect benefits to plant development or stress response.

Discussion – Pending Workgroup Recommendation

T-66 **Maleic-Itaconic Copolymer -** is a family of copolymers that may be used as an additive or coating to reduce fixation of phosphate fertilizer in soils and as a coating to provide dust control on granular phosphate fertilizers. **(Tentative 2011)**

Discussion – Pending method Development

T- ? ***Amino Acids*** - are the basic structural units of proteins and consist of an amino group, a carboxyl group, a hydrogen atom, and a distinctive R group bonded to a carbon atom, which is called the α-carbon. The R group is referred to as a side chain.

Note. Definitions exist for glycine, L-lysine, L-threonine, DL-tryptophan, L-tryptophan, L-Lysine Monohydrochloride, Taurine, L-Arginine, DL-Arginine, L-Tyrosine, and L-Lysine Liquid. Definitions in tentative status exist for DL-Methionine Hydroxy Analogue Calcium, DL-Methionine, DL-Methionine hydroxyl analogue isopropyl ester, DL-Methionine Hydroxy Analogue, and DL-Methionine Sodium.

Discussion – Pending Workgroup Recommendation

N- ? **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."

Discussion –

N-? **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 "oilseed meal" with the name of the whole oilseed from which the meal is derived (e.g. soybean meal, cottonseed meal, mustard seed meal, etc.

Discussion –

T-? **Zeolites** are micro porous, aluminosilicate minerals which possess a high cation exchange capacity. Their uses include Soil Amendments and Soil Conditioners.

Discussion –

T-? **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.

Discussion –

T-? **Nitrapyrin** [2-chloro-6-(trichloromethyl) pyridine] inhibits Nitrosomonas spp. of soil bacteria that slows the conversion of ammonium forms of nitrogen to nitrite as part of the nitrification cycle.

Discussion –

Action Items – Items voted to remain Tenitive - *Discussion –*

BSC- 4 **Available Silicon (Si)** is the soluble portion of the total silicon in a fertilizer known as monosilicic acid [Si (OH) $_4$].

N-52 **Kapok Seed Meal -** is the product remaining after extracting most of the oil from whole kapok seeds.

T-64 **Humic Acids -** are the portions of the alkali extracted humic substances that are insoluble in strongly acidic solution. They will precipitate from the alkali extract in acid solutions of pH 2 or less. They can be used as either soil amendments, foliar applications, or blended with liquid fertilizers.

T-65 **Humates -** are the salts of humic acids.

T-71 **Slow Release -** are fertilizer products that release (convert to a plant available form) their plant nutrients at a slower rate relative to a "reference soluble" product. Examples of slow-release products are coated or occluded, which control the release of soluble nutrients through coating or occlusion of the soluble nutrient compounds, water insoluble, or slowly available water soluble.

T-72 **Stabilized fertilizer** - a fertilizer product that has been amended with an additive that reduces the rate of transformation of a fertilizer compound(s), extending the time of nutrient availability to the plant by a variety of mechanisms relative to its un-amended form.

T-84 **Enhanced Efficiency Reference Product** – "The soluble fertilizer product (prior to treatment by reaction, coating, encapsulation, addition of inhibitors, compaction, occlusion, or by other means) or the corresponding product used for comparison to substantiate enhanced efficiency claims."

New Terms placed in Tentative Status - *Discussion – eligible to move to official*

C-19 **Calcium Thiosulfate –** (fertilizer quality) is a product composed principally of CaS_2O_3, which inhibits the ammonia volatilization from urea and urea ammonium nitrate. **(Tentative 2012) (OP #65 page 81)**

T- ? **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. **(Tentative 2012)**

NITROGEN DEFINITIONS

N-? **ANHYDROUS AMMONIA** - is ammonia gas with the water content less than 0.5%, which is in a liquid form under pressure. The nitrogen concentration is typically 82%.

N-? **AQUA AMMONIA** - is a solution of ammonia and water. The nitrogen content is typically between 10-30%.

N-? **AMMONIUM NITRATE-SULFATE** - is a blend of ammonium nitrate and ammonium sulfate. The nitrogen content is typically between 26-30%.

N-? **AMMONIUM POLYSULFIDE** - is a mixture of ammonium polysulfide's formed by reacting ammonium hydroxide and sulfur. The nitrogen content is not less than 20% and sulfur content is typically between 40%-45%

N-? **CALCIUM AMMONIUM NITRATE** - is a mixture of ammonium nitrate with calcium nitrate or limestone with a nitrogen range of 17-27%." For labeling purposes, this product must be listed in the derived from statement as Ammonium Nitrate and Calcium Carbonate or Ammonium Nitrate and Calcium Nitrate".

N-? **CALCIUM NITRATE-UREA** - is the compound formed by the reaction of Calcium Nitrate and urea ammonium nitrate $Ca(NO_3)_2 \bullet 4CO(NH_2)_2$. The compound contains approximately 33% nitrogen and 9% calcium.

N-? **FERROUS AMMONIUM SULFATE** - Also known as Ammonium Iron (II) Sulfate $(NH_4)_2Fe(SO_4)_2$, which is a double salt of ferrous sulfate and ammonium sulfate.

N-? **FERRIC AMMONIUM SULFATE** - Also known as Ammonium Iron (III) sulfate $FeNH_4(SO_4)_2$, which is a double salt of ferric sulfate and ammonium sulfate.

N-? **MAGNESIUM NITRATE** - is the magnesium salt of nitric acid - $(Mg(NO_3)_2.6H_20$, with a minimum nitrogen concentration of 10.5% and a minimum magnesium concentration of 9.3%.

PHOSPHATE

P-? **AMMONIUM METAPHOSPHATE** - A high concentrate of nitrogen and phosphorus compound fertilizer. The formula is $(NH_4)3PO_4$, which is unstable. The final product after the loss of ammonia is Diammonium Phosphate.

P-? **AMMONIUM PHOSPHATE –NITRATE** is a mixture of ammonium nitrate and MAP (73% AN and 27% MAP) with grade of 27-14-0 or AN and DAP (70% AN and 30% DAP)

C-? **SPENT BONE BLACK** - contains approximately 10% carbon, 84% calcium phosphate and 6 % calcium carbonate. It is made from charring of bones or waste ivory.

C-? **PHOSPHATIC LIMESTONE -** It contains approximately 23% of tri-calcium phosphate and 70% of calcium carbonate.

P-? **MAGNESIUM PHOSPHATE** - is the magnesium salt of phosphoric acid, generally expressed as $MgHPO_4$ and its hydrated forms.

P-? **NITRIC PHOSPHATE** - These fertilizer products are manufactured from the reaction of nitric acid and phosphate rock.

P-? **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.

POTASH

K-? **MANURE SALTS** - are soluble salts from manure, chiefly potassium chloride (KCl). It shall contain not less than twenty percent (20%) soluble potash (K_2O).

K-? **POTASSIUM CARBONATE** - (K_2CO_3) is the salt of carbonic acid and potassium. It shall contain not less than sixty four percent (64%) soluble potash (K_2O).

K-? **POTASSIUM-METAPHOSPHATE** - (KPO_3) is chiefly the potassium salt of metaphosphoric acid (HPO_3). It shall contain not less than fifty five percent (55%) available phosphate (P_2O_5) and thirty seven percent (37%) soluble potash (K_2O).

T-? **TOBACCO STEMS** - are whole or ground waste tobacco products, principally stems. It shall contain not less than two percent (2%) total nitrogen and six percent (6%) soluble potash (K_2O).

NATURAL ORGANICS

T-? **CASTOR POMACE** - is the product remaining after extracting oil from castor seed.

T-? **COCOA SHELL MEAL** - is the ground shells obtained from cocoa beans.

T-? **COCOA TANKAGE** - is the by-product obtained during the manufacturing of cocoa beans into chocolate.

T-48 **BIOSOLIDS** - A primary organic solid material produced by wastewater treatment (SEWAGE SLUDGE) processes that can be beneficially recycled for its plant nutrient content and soil amending characteristics. (Official 1997)

T-? **LINSEED MEAL** - is the product remaining after extracting oil from linseed.

T-? **TUNG POMACE** - is the product remaining after extracting oil from tungseed.

SECONDARY'S/MICRONUTRIENTS

AL-? **ALUMINUM SULFATE** - is the aluminum salt of sulfuric acid. It is primarily used as a soil acidifier.

C- ? **BRUCITE** - is the naturally occurring mineral form of magnesium hydroxide. (MAGNESIUM HYDROXIDE)

C-? **CALCIUM CHLORIDE** - Calcium Chloride and its hydrated forms, is the calcium salt of hydrochloric acid and has the formula $CaCl_2$.

Co-? **COBALT SULFATE** - Cobalt Sulfate and its hydrated forms, is a cobalt salt of sulfuric acid and has a the formula of $CoSO_4$

T-? **SOIL AMENDMENT** - (commonly referred to a Soil Additives or Soil Conditioners), means any substance or a mixture of substances which is intended to improve the physical, chemical, biochemical, biological or other characteristics of the soil, except fertilizers, agricultural liming materials, unmanipulated animal manures, unmanipulated vegetable manures, pesticides and other materials exempt by regulation.

T-? **PLANT AMENDMENT** - Any substance applied to plants or seeds which are intended to improve growth, yield, product quality, reproduction, flavor, or other favorable characteristics of plants except fertilizer, soil amendments, agricultural liming materials, animal and vegetable manure, pesticides, plant regulators, and other materials which may be exempted by regulation.

5. <u>New Business</u>

New Term Application Process

Ca-? **Calcium Phosphite** is a product obtained when phosphorous acid is neutralized with calcium hydroxide and consists primarily of calcium phosphite ($CaHPO_3$) in a stable aqueous suspension or wettable powder. . In aqueous solution the phosphorus atom

is a valency state of +5 and an oxidation state of -1 and -2. It does not contain any significant amounts of available phosphate.

Discussion –

T-? **Basalt** is a common fine-grained igneous volcanic rock, that contains, by volume, less than 20% quartz and less than 10% feldspathoid and where at least 65% of the feldspar is in the form of plagioclase. It is rich in secondary and micro nutrients.

Discussion –

Next Steps - Assignments and Agenda Items for next meeting