

Report of the Board of Directors

Voting Topics Winter Annual 2019

Move to Delete

BSC-4 Available Silicon (Si) – Is the soluble portion of the total silicon in a fertilizer known as monosilicic acid $[\text{Si}(\text{OH})_4]$. (~~Official 2013~~ Tentative SA 2018) (OP71, pg104,133; OP72, pg 106,135)

Move to Official

T-100 Humic Substances – 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. Sources of humic substances are commercially harvested from terrestrial deposits which include, but are not limited to, Leonardite, oxidized lignite, oxidized sub-bituminous coals, humalite, carbonaceous shales (including humic shale), peat, and sapropel. (Tentative SA 2018) (OP71, pg 80, 112; OP72, pg 82,114)

Ca-28 Calcium Lignosulfonate – is a complex of calcium (II) salt of lignosulfonic acid. (Tentative SA 2108) (OP72, pg 98,127)

Cu-15 – Copper Lignosulfonate Is a complex of the copper (II) salt of lignosulfonic acid. (~~Official 2000~~) (Tentative 2018 SA) (OP71, pg99,128; OP72, pg 101,130)

Fe-17 – Iron Lignosulfonate Is a complex of the iron (II) salt of lignosulfonic acid. (~~Official 2000~~) (Tentative 2018 SA) (OP71, pg 101,129; OP72, pg 103,132)

Mn-14 – Manganese Lignosulfonate Is a complex of the manganese (II) salt of lignosulfonic acid. (~~Official 2000~~) (Tentative 2018 SA) (OP71, pg 102,131; OP72, pg 104,133)

Zn-17 – Zinc Lignosulfonate Is a of the zinc (II) salt of lignosulfonic acid. (~~Official 2000~~) (Tentative 2018 SA) (OP71, pg 103,133; OP72, pg 106, 135)

Move or Retain as Tentative

T-109 Maleic-Itaconic Copolymer, Calcium Salt – A substance composed of a partial calcium salt of maleic-itaconic copolymer that can be applied to granular urea fertilizers or mixed with liquid ammoniacal nitrogen/urea fertilizers. (OP72, pg 83,115)

T-110 Maleic-Itaconic Copolymer, Sodium Salt – A substance composed of a partial sodium salt of maleic-itaconic copolymer that can be applied to granular phosphate fertilizers. (OP72, pg 83,115)

T-108 Maleic-Itaconic Copolymer, Ammonium Salt – A substance composed of a partial ammonium salt of maleic-itaconic copolymer that can be mixed with liquid phosphate fertilizers. (OP72, pg 83,115)

T-111 Free Sulfur – Represents the elemental sulfur in a sulfur sub-guarantee

T-112 Combined Sulfur – refers to sulfur combined with other elements, primarily by ionic bonds. Combined sulfur can be present in many forms, the most common is sulfate sulfur (SO_4^{2-}). This is the plant available form of sulfur derived from salts containing the sulfate ion SO_4^{2-} and positively charged ions such as those of ammonium and magnesium. Many other forms of combined sulfur can and do exist.

T- 113 Endomycorrhizal fungal propagules– are the structures of endomycorrhizal fungi that can generate another endomycorrhizal fungal individual. These structures include spores and root fragments colonized by arbuscular mycorrhizal fungi.

T- 114 Mycorrhizal fungi – are fungi that form symbiotic associations between the fungal mycelium and the roots of vascular plants and may act as an extension of the plant root system.

T- 115 Mycorrhiza (plural mycorrhizae) – is a term used to describe the symbiotic association between a mycorrhizal fungi and a plant root.

T- 116 Ectomycorrhizal fungi – are fungi that colonize the outer root zone of woody plants (e.g. conifers, oaks, willows, and eucalypts) without penetrating the root cell and form associations with plants that are characterized by intercellular hyphae. Only the numbers of spores are allowed in product guarantees.

T- 117 Endomycorrhizal fungi [also Arbuscular Mycorrhizal Fungi (AMF)] – any mycorrhizal fungi that form vesicles and Arbuscules in root cells. Also - vesicular

arbuscular mycorrhizae (VAM)] are members of the phylum Glomeromycota, one the largest groups of endomycorrhizal fungi. Only the numbers of spores or propagules are allowed in product guarantees.

T- 118 Endomycorrhiza(e) - A mycorrhizal association with intracellular penetration of the host root cortical cells by the fungus as well as outward extension into the surrounding soil.

T- 119 Ectomycorrhiza(e) - Fungal associations characterized by two structural components between the mycelium and the plant root; a sheath or mantle of fungal tissue which encloses a plant root, a intricate inward growth of hyphae between the epidermal and cortical cells called the Hartig net.

T- 120 Beneficial bacteria – are bacteria that promote plant growth, either directly, by colonizing roots and fixing nitrogen, or indirectly, by increasing the availability of nutrients, such as phosphorus, from the soil. Beneficial bacteria are guaranteed by genus and species or strain and an amount, designated as colony-forming units per gram (for dry products) or milliliter (for liquid products).

T- 121 Colony-forming unit (CFU) – is a unit used to quantify the viable cells of bacteria, or yeast in a sample. It is a measure of the number of individual colonies formed when the inoculum is plated using microbiological culture methods appropriate for that organism.

T-122€# Pronitridine – is a water-soluble reaction product of urea, ammonium hydroxide, N-cyanoguanidine, and formaldehyde. It is a nitrification inhibitor (CAS Number 1373256-33-7)

P- 39 Hydroxylapatite - is a naturally-formed phosphate rock mineral with the formula $\text{Ca}_5(\text{PO}_4)_3(\text{OH})$. The Fluorine content is less than 1%.

K-23 TriPotassium triHydrogen Phosphate Dihydrate dehydrate – Inorganic water soluble fertilizer; Double salt of Monopotassium Phosphate and Dipotassium Phosphate. It shall contain forty-two (42%) to forty-five (45%) available phosphate and forty-two (42%) to forty-five (45%) soluble potash. (CAS Number 66922-99-4)

S-13# - Elemental Sulfur (S°) – Sulfur existing in its elemental form. It can be sourced from the refining process of crude oil or mined from natural sources. Elemental sulfur is a source of slow release sulfur. Particles of less than 100µm in size have been shown to oxidize to sulfur over a growing season to become plant available. (Tentative SA 2018)(OP72, pg 100,129)

Send Back to Committee

N-66 - Ammoniated Calcium Nitrate – Consisting of a hydrated double salt of calcium nitrate and ammonium nitrate having the chemical formula $[5\text{Ca}(\text{NO}_3)_2 \cdot \text{NH}_4\text{NO}_3 \cdot 10\text{H}_2\text{O}]$, CAS# 15245-12-2]. Both the granulated or prilled product (15.5-0-0) provide water soluble nitrogen and calcium. (Tentative WA 2018, SA 2018) (OP71, pg 85, 118; OP72, pg 87, 120)

N-67 - Calcium Ammonium Nitrate (CAN) – A nitrogenous fertilizer derived from ammonium nitrate which contains a minimum of 20% calcium material (e.g. calcite or dolomite) and a maximum of 27% nitrogen. The material can be substituted with calcium sulfate (gypsum). It is a source of water soluble nitrogen but not a source of water soluble calcium. It may be granular or prilled.(Tentative WA 2018, SA 2018) (OP71 pg 86, 118; OP72 pg 88,120)

N-67 - Calcium Ammonium Nitrate (CAN) – A dry fertilizer containing as its essential ingredients only ammonium nitrate and calcium carbonate (e.g. limestone) and/or magnesium carbonate and calcium carbonate (e.g. dolomite), prepared as a homogenous prill or granule, with a maximum combustible material content, expressed as carbon, of 0.4% by weight. The minimum content of such calcium and/or magnesium carbonates in CAN is 20% by weight and their purity level is 90% by weight minimum.

Motion from Committee to Tentative

Below is the current SUIP #6

Mixtures of Ammonium Nitrate and Limestone or Dolomite – These shall not be designated as “ammonium calcium nitrate”, “calcium ammonium nitrate” or similar names which imply the presence of either calcium nitrate or ammonium carbonate in such mixture.

SUIP #6 would be amended as follows:

Calcium Ammonium Nitrate (CAN) In the CAN production process, the carbonates are added as a fine powder with a minimum of 80 percent of the powder smaller than 250 microns. Carbonates are either added directly to the CAN granulator or premixed with a concentrated ammonium nitrate solution to produce a homogeneous slurry that is fed into the granulation or prilling section. The solid CAN that is produced contains an intimate homogenous mixture in which each single particle has a similar ammonium nitrate/carbonates ratio.

Mixtures of Ammonium Nitrate and Limestone or Dolomite A physical blend of dry fertilizer grade ammonium nitrate granules or prills with carbonates (e.g., limestone granules or chips) giving the same average chemical composition as CAN does not qualify as CAN under this definition if any of its individual blended constituents containing ammonium nitrate

Motion from Committee to Tentative SUIP #6

Motion from Board recommends no action on N-66, N-67, and SUIP#6 and for them to be sent back to committee. Young, Seconded Simons, Passed.