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2015-16 APPROVED INPUT MATRIX



NOTE: Under the Organic Grower Group Certification, only the following approved inputs will be utilized by participating growers (Labels and SDS (MSDS)sheets are provided in each grower's manual. In an emergency situation (where an input is not provided on this list but could be needed to save the crop from an unforeseen devastating situation), the growers will first meet with Appalachian Harvest. Appalachian Harvest will consult with QCS and seek written approval for said emergency input. Unless otherwise authorized and pre-approved, NO ADDITIONAL inputs will be permitted.

DOC#	INPUT	MANUFACTURER (Pre- Approved by QCS)	PURPOSE	APPLICATION RATE	INTERVALS
6.02.01	Nature Safe 8-5-5	Griffin Industries, See Label/SDS Pre- approved by QCS- 12/2013	Fertility	300 lbs per acre	1x per year
6.02.02	Nature Safe 13-0-0	Griffin Industries, See Label/SDS Preapproved by QCS- 12/2013	Fertility	150 lbs per acre	1x per year
6.02.03	Neptunes Harvest Fish Fertilizer 2-3-1	Neptune's Harvest, See Label/SDS Pre- approved by QCS- 12/2013	Fertility	1 tbsp per gal of water	every 10-14 days
6.02.04	Neptunes Harvest Fish Fertilizer 2-4-1	Neptunes Harvest, See Label/SDS Pre- approved by QCS- 12/2013	Fertility	1 tbsp per gal of water	every 10-14 days
6.02.05	Allganic Nitrogen Natural Nitrate of Soda Crystalline 16-0-0 (Chilean Nitrate)***	SQM North America Corp., See Label/SDS Pre-approved by QCS- 12/2015	Fertility		1x per year Drip Irrigation every 10-14 days
6.02.06	Down to Earth Bone Meal 3-15-0	Down to Earth Distributors, See Label/SDS Pre-approved by QCS- 12/2015	Fertility	1300-2600 lbs per acre, 2-4 oz per plant	1x per year Per month
6.02.07	Micro Start 60 3-2-3	Perdue AgriRecycle, LLC,	Fertility	1130 lbs per 1000 sq ft = 1 ton per	pre-planting and side dressing to ensure crop health
6.02.08	Harmony 5-4-3	Harmony Organics	Fertility	6-8 lbs per 100 sq ft 60-80 lbs per 1000 sq ft 1 ton per acre	Yearly
6.02.09	Montery Epson Salt Magnesium Sulfate 9.8%	Montery Lawn & Garden Products, See Label/SDS Pre-approved by QCS- 12/2013	Fertility	4 tbsp per gallon water foliar applied per 500-1000 sq ft	As needed

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DOC#	INPUT	MANUFACTURER (Pre- Approved by QCS)	PURPOSE	APPLICATION RATE	INTERVALS
6.02.10	Montery Boro-Flo DF	Montery Lawn & Garden Products, See Label/SDS Pre-approved by QCS- 12/2013	Fertility	Calculated on case by case basis	When deficiency occurs
6.02.11	Nature's Source	Ball TDBF, See Label/SDS Pre-approved by QCS- 12/2015	Fertility	1:100 injector solution, 35.6 oz per gallon water	As needed
6.02.12	Ground Limestone	Austinville Limestone Co.,	Fertility	Depends on pH	seek advice from internal controls and local extension agent, then request for approval to QCS
6.02.13	Open Document Number		Fertility		
6.02.14	Open Document Number		Fertility		
6.02.15	Open Document Number		Fertility		
6.02.16	Open Document Number		Fertility		
6.02.17	Open Document Number		Fertility		
6.02.18	Dipel DF*	Valent, See Label/SDS Pre-approved by QCS- 12/2013	Insect Management	2-4 tsp per gal of water	every 3-14 days
6.02.19	Xentari*	Valent, See Label/SDS Pre-approved by QCS- 12/2013	Insect Management	2-4 tsp per gal of water	every 3-14 days
6.02.20	Safer Organic Insecticide Soap*	Woodstream Corp., See Label/SDS Pre- approved by QCS- 12/2013	Insect Management	2.5 oz per gal of water	every 3 days for infestation every 7-10 as pest mgt plan

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DOC#	INPUT	MANUFACTURER (Pre- Approved by QCS)	PURPOSE	APPLICATION RATE	INTERVALS
6.02.21	INI-Pede insecticide Soan*	Gowan Co., See Label/SDS Pre-approved by QCS- 12/2013	Insect Management	2.5 oz per gal of water	every 3 days for infestation every 7-10 as pest mgt plan
6.02.22	Entrust/Spinosad 80%*	Dow Chemical, See Label/SDS Pre- approved by QCS- 12/2013	Insect Management	1/2 to 3 oz per acre	6-10x per year only. Read label for crop specific information
6.02.23	Montery Garden Spray/ Spinosad*	Montery Lawn & Garden Products, See Label/SDS Pre-approved by QCS- 12/2013	Insect Management	2 oz per gal of water	every 10-14 days
6.02.24	IGarden Sate Neem Oil Concentrate*	Shultz Co., See Label/SDS Pre-approved by QCS- 12/2013	Insect Management	1 oz per gal of water	every 7 days for heavy pest population, every 10-14 as pest mgt
6.02.25	Pyganic OG 1.4*	MGK, See Label/SDS Pre-approved by QCS- 12/2013	Insect Management	1-2 oz per gal of water	every 10-14 days
6.02.26	ΙΔταίτοι	Gordon's , See Label/SDS Pre-approved by QCS- 12/2014	Insect Management	1/2 - 1 oz per gal of water	every 7-10 days as situation warrants
6.02.27	I(zrandevo Advance Rio-insecticide	Marrone Bio Innovations, See Label/SDS Pre-approved by QCS- 12/2015	Insect Management	1-3 lbs per acre	at intervals sufficient to maintain control
6.02.28	Pyganic EC 5.0	MGK, See Label/SDS Pre-approved by QCS- 04/2016	Insect Management	1/4 to 1/2 oz per gal of water	repeat as needed but not more than 1 application per day
6.02.29	Nuke'em	Flying Skull Plant Products, See Label/SDS Pre-approved by QCS- 04/2016	Insect Management	4 oz per gal of water	every 5-7 days
6.02.30	Open Document Number		Insect Management		
6.02.31	Open Document Number		Insect Management		

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DOC#	INPUT	MANUFACTURER (Pre- Approved by QCS)	PURPOSE	APPLICATION RATE	INTERVALS
6.02.32	Open Document Number		Insect Management		
6.02.33	Garden Safe Fungicide 3*	Shultz Co., See Label/SDS Pre-approved by QCS- 12/2013	Disease Management	2 oz per gal of water	every 7 days if disease is already present, every 14 days for disease prevention
6.02.34	Green Cure Foiliar Fungicide*	H.I. Agritech, See Label/SDS Pre-approved by QCS- 12/2013	Disease Management	I1 then per gal of water	every 7-14 days for prevention
6.02.34	dieen cure rolliai rungiciue	H.I. Agritech, See Label/SDS Pre-approved by QCS- 12/2013	Disease Management	2 tbsp per gal of water	every 7 days for 3 weeks to treat disease infestation
6.02.35	Actinovato AC*	Novozymes BioAg, See Label/SDS Pre- approved by QCS- 12/2013	Disease 1 tsp per gal of water	1 tsp per gal of water	every 7-14 days
0.02.33	Actinovate AG*	Novozymes BioAg, See Label/SDS Pre- approved by QCS- 12/2013	Disease Management	3-12 oz per 50-150 gal of water	every 7-14 days
6.02.36	Serendae Garden Disease Control*	Bayer Crop Sciences, See Label/SDS Pre- approved by QCS- 12/2013	Disease Management	1-4 oz per gal of water	every 7 days
6.02.37	Sonata*	Bayer Crop Sciences, See Label/SDS Pre- approved by QCS- 12/2013	Disease Management	2 oz per gal of water	every 7 days
6.02.38	Champ WG Copper Fungicide**	Nufarm, See Label/SDS Pre-approved by QCS- 12/2013	Disease Management	1-2 lb per acre, 1-2 tbsp per gal	3-10 day intervals, look at label for crop specific instructions
6.02.39	Micro Sulf	Nufarm, See Label/SDS Pre-approved by QCS- 12/2014	Disease Management	1 tbsp per gal of water	every 7 days
6.02.40	Oxidate	Biosafe, See Label/SDS Pre-approved by QCS- 12/2014	Disease Management	1/2- 1 oz per gal of water	every 7-10 days as situation warrants

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DOC#	INPUT	MANUFACTURER (Pre- Approved by QCS)	PURPOSE	APPLICATION RATE	INTERVALS
6.02.41	Regalia Advance Bio-fungicide	Marrone Bio Innovations, See Label/SDS Pre-approved by QCS- 12/2015	Disease Management	2.2-8.8 oz per 1000 row ft	7-10 day intervals
6.02.42	Microthiol Disperss, Micronized wettable sulfur	United Phosphorus, Inc, See Label/SDS Preapproved by QCS- 12/2015	Disease Management	5-20 lbs per acre	7-10 day intervals
6.02.43	Potassium Bicarbonate	Kaligreen/Otsuka Chemical or Milstop	Disease Management	2.0-5 lbs per acre	Weekly, or as needed. Start at lower rate and increase 0.25 pounds per application
6.02.44	Clorox Bleach	Clorox Company, See DOC 8.31 and 8.31a	Disease Management	See SOP 2.52 for sanitizing, SOP 2.46 for postharvest wash	Not to exceed 10% solution by volume
6.02.45	Mycostop Biological Fungicide	Vedera, Espoo Finland Pre-approved by QCS- 04/2016	Disease Management	5 grams/1.3 gal	Apply as a soil spray then water in
6.02.46	l Sanidates ()	BioSafe, See Label/SDS Pre-approved by QCS- 12/2014	Disease Management	1.6 oz per 5 gal water	To be used for food contact surfaces
6.02.47	Open Document Number		Disease Management		
6.02.48	Open Document Number		Disease Management		
6.02.49	Open Document Number		Disease Management		
6.02.50	Pro-Mix Ultimate Organic Pottig Mix with Mycoactive	Premier Horticulture, See Label/SDS Pre- approved by QCS- 04/2016	Potting Soil/ Amendment	As needed for transplant production	As needed for transplant production

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DOC#	INPUT	MANUFACTURER (Pre- Approved by QCS)	PURPOSE	APPLICATION RATE	INTERVALS
6.02.51	Greensand	Fertrell, See Label/SDS Pre-approved by QCS- 12/2015	Potting Soil/ Amendment	As needed for transplant production	As needed for transplant production
6.02.52	Nuleaf Compost	Seaside Mulch, See Label/SDS Preapproved by QCS- 12/2015	Potting Soil/ Amendment	2-4 in deep, till 6-8 in deep	1x per year
6.02.53	Pro-Mix Organic Vegetable & Herb Mix	Premier Horticulture, See Label/SDS Preapproved by QCS- 04/2016	Potting Soil/ Amendment	As needed for transplant production	As needed for transplant production
6.02.54	Premium Lite Growing Mix	McEnroe Organic Farm,	Potting Soil/ Amendment	As needed for transplant production	As needed for transplant production
6.02.55	Palmetto Vermiculite	Palmetto Vermiculite Co.,	Potting Soil/ Amendment	As needed for transplant production	As needed for transplant production
6.02.56	Sun Gro Professional Growing Mix Sunshine #1 N&O RSi Resilience Silicon Enriched	SunGro Horticulture Distribution,	Potting Soil/ Amendment	As needed for transplant production	As needed for transplant production
6.02.57	Open Document Number		Potting Soil/ Amendment		
6.02.58	Open Document Number		Potting Soil/ Amendment		
6.02.59	Open Document Number		Potting Soil/ Amendment		
6.02.60	Open Document Number		Potting Soil/ Amendment		
6.02.61	Open Document Number		Potting Soil/ Amendment		

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DOC#	INFOI	Approved by QCS)		PUNPUSE	APPLICATION RATE	INTERVALS

NATIONAL ORGANIC PROGRAM (NOP) REQUIREMENTS REGARDING ORGANIC INPUTS

205.203 Soil fertility and crop nutrient management practice standard.

(c) The producer must manage plant and animal materials to maintain or improve soil organic matter content in a manner that does not contribute to contamination of crops, soil, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.

205.206 Crop pest, weed, and disease management practice standard.

- (a) The producer must use management practices to prevent crop pests, weeds, and diseases including but not limited to:
 - (1) Crop rotation and soil and crop nutrient management practices, as provided for in §§ 205.203 and 205.205;
 - (2) Sanitation measures to remove disease vectors, weed seeds, and habitat for pest organisms; and
- (3) Cultural practices that enhance crop health, including selection of plant species and varieties with regard to suitability to site-specific conditions and resistance to prevalent pests, weeds, and diseases.
- (b) Pest problems may be controlled through mechanical or physical methods including but not limited to:
 - (1) Augmentation or introduction of predators or parasites of the pest species;
 - (2) Development of habitat for natural enemies of pests;
 - (3) Non-synthetic controls such as lures, traps, and repellents.
- (c) Weed problems may be controlled through:
 - (1) Mulching with fully biodegradable materials;
 - (2) Mowing;
 - (3) Livestock grazing;
 - (4) Hand weeding and mechanical <u>cultivation</u>;
 - (5) Flame, heat, or electrical means; or
 - (6) Plastic or other synthetic mulches: Provided, That, they are removed from the field at the end of the growing or harvest season.
- (d) Disease problems may be controlled through:
 - (1) Management practices which suppress the spread of disease organisms; or
 - (2) Application of non-synthetic biological, botanical, or mineral inputs.
- (e) When the practices provided for in paragraphs (a) through (d) of this section are insufficient to prevent or control crop pests, weeds, and diseases, a biological or botanical substance or a substance included on the National List of synthetic substances allowed for use in organic crop production may be applied to prevent, suppress, or control pests, weeds, or diseases: Provided, That, the conditions for using the substance are documented in the organic system plan.

205.601 Synthetic substances allowed for use in organic crop production.

In accordance with restrictions specified in this section, the following <u>synthetic</u> substances may be used in <u>organic crop</u> production: *Provided*, That, use of such substances do not contribute to contamination of crops, soil, or water. Substances allowed by this section, except disinfectants and sanitizers in paragraph (a) and those substances in paragraphs (c), (j), (k), and (l) of this section, may only be used when the provisions set forth in

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