

PrimusGFS v3.0 Checklist

TABLE 1: AGRONOMIC INPUTS

(Including Question Applicability Table)

REVISED AUGUST 22, 2018

This agronomic inputs section should be completed for each of the farm and indoor agriculture operations.

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AGRONOMIC INPUTS

This agronomic inputs section should be completed for each of the farm and indoor agriculture operations.

IF USING: SEWAGE SLUDGE (BIOSOLIDS)

The use of sewage sludge (biosolids), which are by-products of waste water treatment is an automatic failure for indoor growing operations, and also where specifically prohibited under best management practices (e.g., LGMA, T-GAPs).

Complete Page: 1

2.08.01 / 3.09.01

IF USING: ANIMAL BASED COMPOST

This question is specifically targeting compost produced from raw animal manures, as opposed to green waste.

Complete Pages: 2-3

2.08.02 / 3.09.02

IF USING: UNTREATED ANIMAL MANURE

(e.g., raw manure &/or uncomposted, incompletely composted animal manure &/or green waste or non-thermally treated animal manure, etc.) The use of raw manure and/or uncomposted, incompletely composted animal manure and/or green waste or non-thermally treated animal manure is an automatic failure in the Indoor Agriculture audit.

Complete Page: 4

2.08.03 / 3.09.03

IF USING: NON-SYNTHETIC CROP TREATMENTS

(e.g., compost teas, fish emulsions, fish meal, blood meal, bio-fertilizers, etc.)

Examples include but are not limited to compost teas (also known as agricultural teas), fish emulsions, fish meal, blood meal, inoculants (beneficial microbes), and “bio fertilizers” that are produced from animal materials.

Complete Pages: 5-6

2.08.04 / 3.09.04

IF USING: SOIL OR SUBSTRATE AMENDMENTS

(e.g., plant by-products, humates, seaweed, inoculants, and conditioner, etc.)

This refers to soil or substrate amendments (except inorganic nutrients/fertilizers) used that do not contain animal products and/or animal manures. Examples include but are not limited to plant by-products, humates, seaweed, and conditioners.

Complete Page: 7

2.08.05 / 3.09.05

IF USING: INORGANIC FERTILIZERS

(e.g., ammonium nitrate, ammonium sulfate, chemically synthesized urea, etc.)

Examples of manufactured inorganic fertilizers include ammonium nitrate, ammonium sulfate, chemically synthesized urea, etc.

Complete Page: 8

2.08.06 / 3.09.06

Where laws, commodity specific guidelines and/or best practice recommendations exist and are derived from a reputable source, then these practices and parameters should be used. This includes FSMA guidelines, and where any FSMA guidelines are stricter than the audit guidelines, the FSMA guidelines prevail, including compost produced in-house. Audit users should allow a degree of risk association if laws, guidelines, best practices, etc., have not been documented.

(Questions in the same column as the Agronomic Inputs used in the growing operation should be answered. The question number is dependent on the module being completed (Farm or Indoor Agriculture). The cells in dark gray are not applicable based on the specific input type)

Points	Question	Sewage Sludge (Biosolids)	Animal Based Compost	Untreated Animal Manure	Non-synthetic Crop Treatments	Soil or Substrate Amendments	Inorganic Fertilizers
0	Informational gathering question.	2.08.01 / 3.09.01	2.08.02 / 3.09.02	2.08.03 / 3.09.03	2.08.04 / 3.09.04	2.08.05 / 3.09.05	2.08.06 / 3.09.06
15	Is fertilizer being used where the country regulations/guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	2.08.01a / 3.09.01a	2.08.02a / 3.09.02a	2.08.03a / 3.09.03a	2.08.04a / 3.09.04a	2.08.05a / 3.09.05a	2.08.06a / 3.09.06a
15	Are there fertilizer use records available for each growing area, including application records?	2.08.01b / 3.09.01b	2.08.02b / 3.09.02b	2.08.03b / 3.09.03b	2.08.04b / 3.09.04b	2.08.05b / 3.09.05b	2.08.06b / 3.09.06b
10	Are applications incorporated into the soil prior to planting or bud burst for tree crops and not applied during the growing season?	2.08.01c / 3.09.01c	2.08.02c / 3.09.02c	2.08.03c / 3.09.03c			
15	Is the material applied in a manner that does not contact the edible portions of the crop?				2.08.04c / 3.09.04c		
10	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	2.08.01d / 3.09.01d	2.08.02d / 3.09.02d	2.08.03d / 3.09.03d	2.08.04d / 3.09.04d	2.08.05c / 3.09.05c	2.08.06c / 3.09.06c
15	Are there Certificate(s) of Analysis (CoA) and/or letters of guarantee stating that the materials used are free from animal products and/or animal manures?					2.08.05d / 3.09.05d	
15	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	2.08.01e / 3.09.01e	2.08.02e / 3.09.02e	2.08.03e / 3.09.03e	2.08.04e / 3.09.04e		
10	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	2.08.01f / 3.09.01f	2.08.02f / 3.09.02f	2.08.03f / 3.09.03f	2.08.04f / 3.09.04f		
15	Does the fertilizer/crop nutrition material go through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and at least meets the following microbial parameters: no detectable <i>L. monocytogenes</i> , <i>Salmonella</i> , or <i>E. coli</i> O157:H7 and less than 1000 MPN fecal coliforms/gram of total solids?		2.08.02g / 3.09.02g		2.08.04g / 3.09.04g	2.08.05e / 3.09.05e	2.08.06d / 3.09.06d

SEWAGE SLUDGE (BIOSOLIDS)				PAGE 1 OF 1
Question No.	Question	Total Points	Expectation	
2.08.01/ 3.09.01	Is sewage sludge (biosolids) being used as an input for this operation?	0		
2.08.01a/ 2.09.01a	Is fertilizer being used where the country regulations/guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15		
2.08.01b/ 3.09.01b	Are there fertilizer use records available for each growing area, including application records?	15		
2.08.01c/ 3.09.01c	Are applications incorporated into the soil prior to planting or bud burst for tree crops and not applied during the growing season?	10		
2.08.01d/ 3.09.01d	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10		
2.08.01e/ 3.09.01e	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	15		
2.08.01f/ 3.09.01f	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10		

ANIMAL BASED COMPOST				PAGE 1 OF 2
Question No.	Question	Total Points	Expectation	
2.08.02/ 3.09.02	Is animal based compost being used as an input for this operation?	0		
2.08.02a/ 3.09.02a	Is fertilizer being used where the country regulations/guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15		
2.08.02b/ 3.09.02b	Are there fertilizer use records available for each growing area, including application records?	15		
2.08.02c/ 3.09.02c	Are applications incorporated into the soil prior to planting or bud burst for tree crops and not applied during the growing season?	10		
2.08.02d/ 3.09.02d	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10		
2.08.02e/ 3.09.02e	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	15		

ANIMAL BASED COMPOST (CONTINUED)			PAGE 2 OF 2
Question No.	Question	Total Points	Expectation
2.08.02f/ 3.09.02f	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10	
2.08.02g/ 3.09.02g	Does the fertilizer/crop nutrition material go through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and at least meets the following microbial parameters: no detectable <i>L. monocytogenes</i> , <i>Salmonella</i> , or <i>E. coli</i> O157:H7 and less than 1000 MPN fecal coliforms/gram of total solids?	15	

UNTREATED ANIMAL MANURE				PAGE 1 OF 1
Question No.	Question	Total Points	Expectation	
2.08.03/ 3.09.03	Is untreated animal manure being used as an input for this operation?	0		
2.08.03a/ 3.09.03a	Is fertilizer being used where the country regulations/guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15		
2.08.03b/ 3.09.03b	Are there fertilizer use records available for each growing area, including application records?	15		
2.08.03c/ 3.09.03c	Are applications incorporated into the soil prior to planting or bud burst for tree crops and not applied during the growing season?	10		
2.08.03d/ 3.09.03d	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10		
2.08.03e/ 3.09.03e	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	15		
2.08.03f/ 3.09.03f	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10		

NON-SYNTHETIC CROP TREATMENTS			PAGE 1 OF 2
Question No.	Question	Total Points	Expectation
2.08.04/ 3.09.04	Are non-synthetic crop treatments being used as an input for this operation?	0	
2.08.04a/ 3.09.04a	Is fertilizer being used where the country regulations/guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15	
2.08.04b/ 3.09.04b	Are there fertilizer use records available for each growing area, including application records?	15	
2.08.04c/ 3.09.04c	Is the material applied in a manner that does not contact the edible portions of the crop?	15	
2.08.04d/ 3.09.04d	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10	
2.08.04e/ 3.09.04e	Are there Certificate(s) of Analysis (CoA) from the supplier(s) that cover pathogen testing (plus any other legally/best practice required testing) and does the grower have relevant letters of guarantee regarding supplier SOPs and logs?	15	
2.08.04f/ 3.09.04f	Are there Certificate(s) of Analysis (CoA), letters of guarantee or other documents from the supplier(s) that cover heavy metal testing?	10	

NON-SYNTHETIC CROP TREATMENTS (CONTINUED)				PAGE 2 OF 2
Question No.	Question	Total Points	Expectation	
2.08.04g/ 3.09.04g	Does the fertilizer/crop nutrition material go through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and at least meets the following microbial parameters: no detectable <i>L. monocytogenes</i> , <i>Salmonella</i> , or <i>E. coli</i> O157:H7 and less than 1000 MPN fecal coliforms/gram of total solids?	15		

SOIL OR SUBSTRATE AMENDMENTS			PAGE 1 OF 1
Question No.	Question	Total Points	Expectation
2.08.05/ 3.09.05	Are soil or substrate amendments being used as an input for this operation?	0	
2.08.05a/ 3.09.05a	Is fertilizer being used where the country regulations/guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15	
2.08.05b/ 3.09.05b	Are there fertilizer use records available for each growing area, including application records?	15	
2.08.05c/ 3.09.05c	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10	
2.08.05d/ 3.09.05d	Are there Certificate(s) of Analysis (CoA) and/or letters of guarantee stating that the materials used are free from animal products and/or animal manures?	15	
2.08.05e/ 3.09.05e	Does the fertilizer/crop nutrition material go through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and at least meets the following microbial parameters: no detectable <i>L. monocytogenes</i> , <i>Salmonella</i> , or <i>E. coli</i> O157:H7 and less than 1000 MPN fecal coliforms/gram of total solids?	15	

INORGANIC FERTILIZERS			
			PAGE 1 OF 1
Question No.	Question	Total Points	Expectation
2.08.06/ 3.09.06	Are inorganic fertilizers being used as an input for this operation?	0	
2.08.06a/ 3.09.06a	Is fertilizer being used where the country regulations/guidelines ban the use of such materials (e.g., Californian Leafy Green Commodity Specific Guidelines)? ANY DOWN SCORE IN THIS QUESTION RESULTS IN AN AUTOMATIC FAILURE OF THE AUDIT.	15	
2.08.06b/ 3.09.06b	Are there fertilizer use records available for each growing area, including application records?	15	
2.08.06c/ 3.09.06c	Are there Certificate(s) of Analysis (CoA), specifications, product label or other documents available for review provided by the supplier stating the components of the material?	10	
2.08.06d/ 3.09.06d	Does the fertilizer/crop nutrition material go through a physical/chemical/biological process to inactivate human pathogens and the auditee has validation study documentation that shows that the material is safe and at least meets the following microbial parameters: no detectable <i>L. monocytogenes</i> , <i>Salmonella</i> , or <i>E. coli</i> O157:H7 and less than 1000 MPN fecal coliforms/gram of total solids?	15	