

STANDARD TASK ANALYSIS FORM

6/2/2011

Duty/Task:		PERFORMANCE STANDARDS (Observable & Measurable Criteria)	TOOLS, EQUIPMENT, SUPPLIES & MATERIALS (Needed)	REQUIRED KNOWLEDGE AND SKILLS (Math, Science, & Language)	SAFETY (Concerns)	WORKER BEHAVIORS (Important to Worker Success)	DECISIONS (Identify Decisions that Must be Made by the Worker)	CUES (Identify the Data Needed for Making Correct Decisions)	ERRORS (Indicate What May Result if Incorrect Decisions are Made)
F-5 Manage fertility program									
1	Review soil sample test results	1 Accurately reviewed soil sample results to identify existing nutrient levels in soil.	1 Soil sample test results	1 Reading skills, basic agronomic knowledge, basic chemistry knowledge	1 N/A	1 Analytical, critical thinker	1 What do the soil sample results indicate? Do I need to re-test? Do the results compare to previous soil sample results?	1 Previous soil sample results, levels of micro and macronutrients in soil, pH level	1 Crops won't get the proper nutrients which will lower crop yields, lost revenue, increased disease and pest pressures, lack of long-term soil sustainability
2	Determine appropriate fertility practices and any and amendment(s) that may be needed	2 Correctly determined appropriate fertility practices and amendment(s) needed for soil or water	2 Soil test interpretation tables	2 Basic agronomic knowledge, growing practice requirements (e.g., certified organic), knowledge of organic and inorganic fertilizers and lime	2 N/A	2 Discerning, decisive, knowledgeable	2 What fertilizers/amendments do I need to add? What quantities are needed per acre? What methods of application are required? Do I need any specialized equipment to apply the required fertilizers and amendments?	2 Fertilizers/amendments used, soil test results, crop plan	2 Crops won't get the proper nutrients which will lower crop yields, lost revenue, increased disease and pest pressures, lack of long-term soil sustainability
3	Determine the appropriate timing to apply the fertilizers and amendments	3 Determined the correct application timing for fertilizers and amendments	3 Crop plan, calendar	3 Knowledge of crop growth, specific amendment application standards, awareness of weather conditions	3 N/A	3 Detail-oriented, timely, discerning, responsible	3 When should I apply fertilizer(s) and amendment(s) to a specific crop? How often should the amendments be applied?	3 Crop planting schedule, fertility requirements for specific crops, weather conditions	3 Fertilizers and amendments applied at the wrong time may leach away and not be available to the crop when needed, fertilizers applied at the wrong stage of plant growth may damage the crop
4	Determine amount of amendments to be applied	4 Determined amount of amendments to be applied	4 Calculator, sample results, plot/field map, amendment list	4 Algebra, basic chemistry skills	4 N/A	4 Detail-oriented, critical thinker, accurate	4 What is the rate of application? What is the total amount of amendments that needs applied?	4 Sample results, specific nutrient ratios of amendments	4 Too much or too little fertilizer or amendment may waste product or affect crop yields, profits will be affected
5	Apply the crop-specific amendments/fertilizers	5 Applied crop-specific amendments/fertilizers in the correct amounts at the correct time	5 Scales, PPE, application equipment, field map, amendment list (e.g., which crop, which amendment, amount to be applied)	5 Knowledge of standard/metric measurements, equipment knowledge, fertilizer/amendment knowledge, knowledge of equipment calibration	5 Use caution around equipment	5 Accurate, analytical, timely, hard worker	5 How much product should I be applying per acre or area? When is the proper time to apply the amendments? What equipment do I need? How do I calibrate the equipment	5 Previous calculations, equipment manual, past experience	5 Won't maximize yields unless the correct amendments are applied in the correct amounts at the correct time
6	Document the application	6 Accurately documented all aspects of the application, including rate per acre, application method, weather conditions, crop and location, cost of total amount applied, vendor information	6 Computer, record book, paper/pencil	6 Computer and record-keeping skills	6 N/A	6 Detail-oriented, conscientious, accurate, organized	6 What information should I document? Where are the records kept?	6 Records required by various organizations (e.g., Certified Organic, government regulations), SOP	6 Won't have good records to base future applications on, may lose organic certification
7	Monitor crop performance	7 Monitored crop performance, noting crop health, density, pests or diseases present	7 Field notebook, pencil, handheld monitoring equipment	7 Knowledge of crop performance, knowledge of disease/pest problems, proper use of monitoring equipment	7 N/A	7 Detail-oriented, analytical, thorough	7 Is the crop performing as anticipated? What aspects of crop performance should I be monitoring? Why is the crop not performing as anticipated? What are the symptoms that need addressed? How often should I monitor crop performance?	7 Visual observation, past experience	7 Won't know how the crop is performing or responding to the fertilizers and amendments that were applied
8	Adjust fertility program based on crop performance as needed	8 Adjusted fertility program based on crop performance as required	8 Calculator, field notes, application equipment, amendment list	8 Knowledge of fertilizers and amendments	8 N/A	8 Detail-oriented, critical thinker, accurate, organized	8 What adjustments need to be made and for which crops? What indicates a need for adjustments? What amendments are required?	8 Visual observation, crop yields, inferior plant condition	8 Poor crop development, low crop yields, lost revenue, increased disease and pest pressures, lack of long-term soil sustainability
9	Review the overall effectiveness of fertility program for current season/year (e.g., single crop/double crop)	9 Reviewed effectiveness of fertility program for current season/year (e.g., single crop/double crop)	9 Fertilizer records, crop yield records	9 Analytical skills, basic crop knowledge, crop production knowledge	9 N/A	9 Detail-oriented, critical thinker, accurate, organized	9 Were there any problems? What was the cause of any problems? Did I reach my yield goals? Was the fertility program cost effective? What's the overall soil/water condition?	9 Crop yields, field performance, crop quality, increased net profit/losses, soil condition, crop variety	9 Won't be able to plan next season's fertility requirements without a thorough assessment of this year's effort
10	Plan the crop-specific fertility program for following season/year	10 Planned an achievable, realistic crop-specific fertility program for following season/year	10 Field notes, production records, soil test results, fertilizer price/availability lists	10 Analytical skills, basic crop knowledge, planning skills	10 N/A	10 Conscientious, deliberate	10 What changes to the fertility program need to be made? What is my crop rotation plan? What amendments will be needed based on the planned crop rotation? What cover crops will I use? What do new soil tests indicate?	10 Crop yields, field performance, crop quality, increased net profit/losses, soil condition, crop variety	10 Won't be able to maximize yields based on planned crop rotation which will affect revenue and profits
Analyst: Susan Pavilkey				Specific Relevant References:					
Expert Workers:									
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