



Job Task Analysis

Employer:	Stanislaus County
Occupation:	Agricultural Assistant
Classification:	Agricultural Assistant I, II
Company Contact:	Risk Management 1010 10 th Street Modesto, California 95354 (209) 525-5770
Date:	November 2007
Analysis Provided By:	Lyle Andersen, PT, CWCE Andersen Physical Therapy, Inc. 3500 Coffee Road, Suite 3 Modesto, California 95355 (209) 549-4626

INTRODUCTION:

A complete job description is available through Stanislaus County Human Resources. The environmental factors, physical and functional demands for this Job Task Analysis were documented by Andersen Physical Therapy, Inc. The methodology for documentation consisted of on-site visits, using various measuring devices such as dynamometers and scales, as well as observation and interviews with employees and managers. A detailed record was made of the physical and functional demands of the job in terms of force pounds, weight, frequency, height, distance, anthropometric measurements, stamina, and degrees of range of motion. The determination of the frequencies of functional activities is based on standards provided by the National Institute for Occupational Safety and Health (NIOSH) and the Work Practice Guide for Manual Lifting (U.S. Department of Commerce, National Technical Information Service).

The Job Task Analysis is organized as follows: General work description; safety requirements; equipment; environmental factors; and physical/functional demands.

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GENERAL WORK DESCRIPTION:

The frequency of the following activities may vary according to the physical requirements of the specific job tasks that the employee may be required to perform at random intervals.

Under the general supervision of the department manager, the Agricultural Assistant I, II, III assists agricultural inspectors in performing inspectional, survey and control activities and performs a wide variety of semi-skilled field tasks in pest control, pest detection and performs related duties as required.

SPECIFIC DUTIES: Available through the Human Resources Department at the County of Stanislaus.

<http://www.stancounty.com/personnel/PDF/JobSpecifications.pdf>

Safety Requirements: All employees are required to observe company safety procedures and standards to insure individual and collective safety, in addition to avoiding unnecessary risk to oneself, co-workers, customers, and property.

Equipment:

- | | |
|---------------------------|------------------------------------|
| 1. Eye dropper, funnel | 7. Pole (trap placement) |
| 2. Insect detection traps | 8. Step stool |
| 3. Lab equipment | 9. Tweezer |
| 4. Magnifying glass | 10. Vehicle |
| 5. Microscope | 11. Wire cutter/needle nose pliers |
| 6. Office equipment | |

*All employees within the **Agricultural Assistant I, II** position are required to provide physical assistance for all weight and frequency requirement needs of all job tasks in order to maintain a safe work environment. Employees must be physically capable of working in any of the job tasks within the **Agricultural Assistant I, II** position.*

ENVIRONMENTAL FACTORS



The following percentages are given in terms of an eight-hour workday:

Seldom =	1% - 2%	Frequent =	34% - 66%
Occasional =	3% - 33%	Constant =	67% - 100%

ENVIRONMENTAL FACTORS		MAXIMUM FREQUENCY
1.	Unprotected heights:	Not Applicable
2.	Being around moving machinery: traffic.	Occasional
3.	Exposure to marked changes in temperature and humidity: outside temperatures may seasonally vary between 28-110 degrees.	Occasional
4.	Exposure to dust, fumes, smoke, gases, or other irritating substances (specify):	Not Applicable
5.	Driving: vehicle.	Occasional
6.	Exposure to excessive noise:..... <i>Hearing protection is available</i>	Not Applicable
7.	Exposure to radiant or electrical energy:.....	Not Applicable
8.	Exposure to solvents or chemicals:..... <i>Refer to MSDS document.</i>	Seldom
9.	Exposure to slippery or uneven walking surfaces: undeveloped ground, water.	Occasional
10.	Working below ground:.....	Not Applicable
11.	Unusual fatigue factors:	Not Applicable
12.	Working with explosives:.....	Not Applicable
13.	Excessive vibration:	Not Applicable
14.	Working with hands in water or other substance:..... <i>Hand protection is available</i>	Not Required
15.	Working proximity:.....	Alone: Continuous Closely with others: Continuous
16.	Working inside:.....	Frequent
17.	Working outside:.....	Frequent

FUNCTIONAL ACTIVITIES



The frequency of the following activities may vary according to the physical requirements of the specific job tasks the employee may be required to perform at random intervals.

PHYSICAL AND FUNCTIONAL REQUIREMENTS

<u>FREQUENCY DEFINITIONS</u>	<u>SELDOM</u>	<u>OCCASIONAL</u>	<u>FREQUENT</u>	<u>CONSTANT</u>
Percent of the Day	1-2%	3-33%	34-66%	67-100%
Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Non Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Repetitive & Static Work	1-50 Reps	51-250 Reps	251-1,000 Reps	1,001-20,000 Reps

1.) **PUSH**: *Pushing activities may require use of the back in conjunction with leg and arm musculature.*

MAXIMUM REQUIREMENT

0-10 pounds:	Occasional	Maximum Force: 25 Pounds
11-25 pounds:	Occasional	
26-100 pounds:	Not Required	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with forces greater than 25 pounds.

Comments: Pushing is utilized with activities such as retrieving, returning, storing and/or transporting equipment and supplies (e.g. bait, desk drawer, file). The employee exerts up to 25 pounds of force in a horizontal plane between waist and shoulder height of a distance up to 200 feet when performing job tasks (e.g. push cart or hand truck containing up to 50-pound bag of rodent bait; close gate door drawer and file; rearrange potted plant).

2.) **PULL**: *Pulling activities may require use of the back in conjunction with leg and arm musculature.*

MAXIMUM REQUIREMENT

0-10 pounds:	Occasional	Maximum Force: 25 Pounds
11-25 pounds:	Occasional	
26-100 pounds:	Not Required	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with forces greater than 25 pounds.

Comments: Pulling is utilized with activities such as retrieving, returning and/or storing supplies (e.g. drawer, file). The employee exerts up to 25 pound of force in a horizontal plane between waist and shoulder height of a distance up to 2 feet when performing job tasks (e.g. pull to open door/desk drawer, file; rearrange potted plant). *Pushing is the preferred method of moving carts.*

3.) **STAND-UP LIFT:** *Lifting weighted objects between floor and waist height.*

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Frequent
11-25 pounds:	Occasional
26-35 pounds:	Occasional
36-50 pounds:	Seldom
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 50 Pounds	

Assistive Devices: One or more person(s) assistance is available with weights greater than 50 pounds.

Comments: A stand-up lift is utilized with activities such as retrieving, returning, storing and/or transporting equipment and supplies (e.g. bag, box, paper, trap, plant). The employee lifts items weighing between <1 pound and 50 pounds from/to 30 inches off the floor when performing job tasks (e.g. lift up to 50-pound bag of rodent bait, up to 40-pound beehive box; 3-ring binder, up to 40-pound box of storage files; up to 50-pound potted plant; up to 10+-pound insect trap). *Safe lifting is performed by utilizing a posture of partial squatting and a straight back. Frequency of lifting weighted objects is seasonally based.*

4.) **LEVEL LIFT:** *Lifting weighted objects from between waist and chest height level for a maximum horizontal distance of up to four feet.*

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Frequent
11-25 pounds:	Occasional
26-35 pounds:	Occasional
36-50 pounds:	Seldom
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 50 Pounds	

Assistive Devices: Forklift, 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 50 pounds.

Comments: A level lift is utilized with activities such as retrieving, returning, storing and/or transporting equipment and supplies (e.g. bag, box, trap, plant, paper). The employee lifts items weighing between < 1 pound and 50 pounds when performing job tasks (e.g. lift up to 50-pound bag of rodent bait, up to 40-pound beehive box; 3-ring binder, up to 40-pound box of storage files; up to 50-pound potted plant; up to 10+-pound inspect trap)

5.) **WEIGHT CARRY:** *Carrying weighted objects between waist and chest height beyond a distance of four feet.*

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-35 pounds:	Seldom
36-50 pounds:	Seldom
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 50 Pounds	

Assistive Devices: Forklift, 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 50 pounds.

Comments: Weight carry is utilized with activities such as retrieving, returning, storing, moving, and/or transporting equipment and supplies (e.g. bag, trap, plant, paper). The employee carries items weighing between <1 pound and 10 pounds between 5 feet and 10 feet when performing job tasks (e.g. carry up to 10-pound bag of rodent bait; 3-ring binder; up to 30-pound potted plant; up to 10+-pound insect trap).

6.) **OVERHEAD LIFT/PULL DOWN:** *Lifting weighted object from/to chest and overhead height level.*

MAXIMUM REQUIREMENT	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-35 pounds:	Seldom
36-50 pounds:	Not Required
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 30 Pounds	

Assistive Devices: A vertical ladder, step ladder or step stool is available to bring items to eye or shoulder level.

Additionally, one or more person(s) assistance is available with weights greater than 30 pounds.

Comments: Overhead lift/pull down is utilized with activities such as retrieving, returning, adjusting and or transporting equipment and/or supplies (e.g. trap, plant). The employee lifts items weighing between <1 pound and 10 pounds to a maximum height of 72 inches when performing job tasks (e.g. reach and lift up to 10+-pound insect detection trap; up to 30-pound potted plant). *Variables to overhead reaching will be the employee's height and anthropometric reach.*

7.) **OVERHEAD REACH:**

MAXIMUM FREQUENCY:	Frequent
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Comments: Overhead reach is performed to a maximum height of 72 inches when retrieving, returning, adjusting and/or transporting devices (e.g. reach overhead to place/remove insect detection trap; examine and inspect potted plant). *A ladder (appropriate height) or step stool may be utilized to bring items to eye or shoulder level. Variables to overhead reaching will be the employee's height and anthropometric reach.*

8.) **FORWARD REACH:**

MAXIMUM FREQUENCY:	Frequent
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Comments: Forward reach is performed up to a distance of 28 inches when manipulating, handling, retrieving, returning, storing and/or transporting devices, equipment and/or supplies (e.g. reach lateral or forward to place/remove insect detection trap; examine and inspect potted plant, beehive trap; desktop work; drive vehicle). *The degree of elbow extension required for reaching will vary according to the employee's anthropometric reach.*

9.) **STOOP:**

MAXIMUM FREQUENCY:	Occasional
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Comments: Stooping is performed when retrieving, returning, storing, adjusting, transporting and/or observing devices, equipment and supplies (e.g. stoop to reach below waist height for inspection of beehives, place/remove insect detection trap; examine and inspect potted plant). *Variable to stooping will be the employee's height. Stooping of the head, trunk and knees can be minimized or avoided by substituting alternate positions of squatting, kneeling or bending when performing job tasks.*

10.) **SQUAT:** (*Unloaded*)

**MAXIMUM
FREQUENCY:** Seldom

Comments: Squatting is performed when retrieving, returning, storing, adjusting, transporting and/or observing equipment and supplies (e.g. squat to reach below waist height for inspection of beehive, place/remove insect detection trap; potted plant). *Squatting may be minimized or avoided by substituting alternate positions of bending or kneeling. Partial squatting is a preferred lifting posture.*

11.) **FORWARD BEND:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Bending forward at the waist is performed when retrieving, returning, storing, adjusting, transporting and/or observing equipment and supplies (e.g. bend to reach near or far below waist height for inspection of beehive, place/remove detection trap; potted plant). Maximum forward trunk flexion required is 60 degrees. *Employee may minimize or avoid excessive forward bending of the trunk up to 80 degrees by using alternate positions of bending at the hips, kneeling, half kneeling, stooping, sitting or squatting.*

12.) **TWIST:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Twisting at the waist is performed when retrieving, returning, storing, adjusting transporting and/or observing equipment and supplies (e.g. twist for inspection of beehives, place/remove insect detection traps; potted plants; insect trap; surveillance; worksite inspection; drive vehicle). *Twisting at the waist may be minimized by turning the whole body, including the feet and working from a swivel chair.*

13.) **TURN:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Turning is performed when retrieving, returning, storing, adjusting, transporting and/or observing equipment and supplies (e.g. turn for inspection of beehives, place/remove insect detection traps; potted plants; insect trap; surveillance; worksite inspection).

14.) **KNEEL:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Kneeling is performed when retrieving, returning and/or storing collections (e.g. kneeling to collect agricultural specimen for examination; inspect potted plant/insect trap). *Kneeling may be minimized or avoided by substituting alternate positions of bending, squatting, or half kneeling.*

15.) **CRAWL:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Crawling is not required to perform job tasks.

16.) **STAIR CLIMB:**

**MAXIMUM
FREQUENCY:** Not Required

Comments: Stair climb is not required to perform job tasks.

17.) **LADDER CLIMB:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Ladder climbing is required to perform job tasks (e.g. step stool). *Variables to overhead climbing will vary according to the employee's height and anthropometric reach.*

18.) **WALK:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Walking is performed when retrieving, returning, storing, moving, and/or transporting equipment and/or supplies (e.g. walking to/from insect detection sits; plant, beehive, tray inspection; surveillance; worksite inspection). Walking length varies between 3 feet and 600+ feet depending on job task.

19.) **SIT:**

**MAXIMUM
FREQUENCY:** Frequent

Comments: Sitting is performed for a maximum of 45-minute intervals when transporting equipment (e.g. drive to/from insect detection trap and plant inspection site; desktop work).

20.) **STAND: (Static)**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Static standing is performed for a maximum of 15-minute intervals when performing job tasks at counter (e.g. stand to handle bait traps in laboratory; customer assistance at reception counter; setting trap; beehive, potted plant inspection; surveillance; worksite inspection). *Specific work tasks may require up to frequent standing.*

21.) **BALANCE:**

MAXIMUM FREQUENCY:	Frequent
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Comments: Good balance is required for safe walking, standing, climbing, reaching and lifting.

22.) **HAND/FOOT CONTROL:**

<u>MAXIMUM REQUIREMENT</u>	
HAND:	
Right:	Occasional
Left:	Occasional
Both:	Occasional
Either:	Not Required
FOOT:	
Right:	Occasional
Left:	Seldom
Both:	Not Required
Either:	Not Required

Comments: Hand controls are utilized to operate equipment (e.g. vehicle) when transporting equipment (e.g. drive vehicle). Foot controls are utilized to operate equipment (e.g. drive vehicle).

23.) **UPPER AND LOWER EXTREMITY COORDINATION:**

<u>MAXIMUM REQUIREMENT</u>	
Simple Grasp:	Frequent
Firm Grasp:	Occasional
Fine Manipulation:	Frequent
Eye/Hand Coordination:	Frequent
Hand/Foot Coordination:	Occasional

Comments: Grasping and coordination activities are performed when retrieving, returning, storing, adjusting, moving, and/or transporting equipment, controls and supplies (e.g. vehicle, insect trap, potted plant, desktop work).

Simple grasping is utilized to perform job tasks (e.g. lift and manipulate objects weighing less than 5 pounds; drive vehicle; desktop work).

Firm grasping is utilized to perform job tasks (e.g. lift and handle objects weighing 5 pounds or greater; handle trap extension pole; beetle rod placement; twist or cut wire; drive vehicle).

Fine manipulation is utilized to perform job tasks (e.g. keyboard, mouse, handwriting, page turn, sort, file, detection trap assembly).

Eye/hand coordination is utilized to perform job tasks (e.g. keyboard, mouse, handwriting, page turn, sort, file, detection trap assembly; drive vehicle).

Hand/foot coordination is utilized to perform job tasks (e.g. drive vehicle).

Depending on individual hand dominance, one hand may be used more frequently than the other when performing job tasks.

24.) CERVICAL (NECK) MOVEMENT:

	<u>MAXIMUM REQUIREMENT</u>
Static Neutral Position:	Frequent
Flexing:	Frequent
Rotating:	Occasional
Extending:	Occasional

Comments: Neck movement is required when performing job tasks (e.g. insect and trap detection, potted plant inspection; drive vehicle; desktop work). *Participating in observation of work environment allowing for safe working conditions. Full cervical range of motion is required to safely perform the job tasks.*

{End of Report}



Stanislaus County

JOB TASK ANALYSIS SUMMARY

<u>FREQUENCY DEFINITIONS</u>	<u>SELDOM</u>	<u>OCCASIONAL</u>	<u>FREQUENT</u>	<u>CONSTANT</u>
Percent of the Day	1-2%	3-33%	34-66%	67-100%
Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Non Material Handling	1-4 Reps	5-32 Reps	33-250 Reps	251-2,000 Reps
Repetitive & Static Work	1-50 Reps	51-250 Reps	251-1,000 Reps	1,001-20,000 Reps

The following is a summary of the physical demands of the Job Task Analysis that were obtained for the position of:

Agricultural Assistant I, II

Functional Activities	Maximum Requirements	Functional Activities	Maximum Requirements
<i>Push (Force)</i> ¹	25 pounds	<i>Stair Climb</i> ¹	Not Required
<i>Pull (Force)</i> ¹	25 pounds	<i>Ladder Climb</i> ¹	Seldom
<i>Stand Up Lift</i> ¹	50 pounds	<i>Walk</i> ¹	Frequent
<i>Level Lift</i> ¹	50 pounds	<i>Sit</i> ¹	Frequent
<i>Weight Carry</i> ¹	50 pounds	<i>Stand (Static)</i> ¹	Occasional
<i>Overhead Lift/Pull Down</i>	30 pounds	<i>Balance</i> ¹	Frequent
<i>Overhead Reach</i> ¹	Frequent	<i>Hand Control</i> ¹	Occasional
<i>Forward Reach</i> ¹	Frequent	<i>Foot Control</i> ¹	Occasional
<i>Stoop</i> ¹	Occasional	<i>Simple Grasp</i> ¹	Frequent
<i>Squat (Unloaded)</i> ¹	Seldom	<i>Firm Grasp</i> ¹	Occasional
<i>Forward Bend</i> ¹	Frequent	<i>Fine Manipulation</i> ¹	Frequent
<i>Twist</i> ¹	Occasional	<i>Eye/Hand Coordination</i> ¹	Frequent
<i>Turn</i> ¹	Occasional	<i>Hand/Foot Coordination</i> ¹	Occasional
<i>Kneel</i> ¹	Seldom	<i>Cervical (neck) Movement</i> ¹	Frequent
<i>Crawl</i>	Not Required		

¹ The critical demands of the job.

Lyle Andersen, PT

Date: _____
Lyle Andersen, PT, CWCE
Preparer Signature

Date: _____
Contact Person
Title

Date: _____
Contact Person
Title

Date: _____
Contact Person
Title

LA/au