

## Fruit sorting - apple

### Task Description:

When sorting size and defect apples the worker stands in an upright position for long periods. The working height is fixed and thus cannot be adjusted to suite the particular height of the sorter. This may prevent a desirable working posture. The alternative position when sorting is sitting on a chair, with upper body twisted. Packing apples into carton boxes involves awkward postures such as twisted upper body and working in outer position, and also heavy lifting. Both packing and sorting apples involves static work with duration of more than 1,5 hours, sometimes up to 3 hours.



Sorting size and defect apples sitting on a chair, with upper body twisted.



Packing apples into boxes, twisting/bending upper body and working in outer positions.



Fixed working height in apple sorting section. Poor working posture due to fixed working height.



Lifting heavy boxes of apples, above shoulder height.



Twisting upper body when lifting heavy boxes of apples.

### Comments from the employee:

- ❑ 'The working height is not appropriate for the sorter'
- ❑ 'It is difficult to improve working posture'
- ❑ 'It is an uncomfortable standing posture and my feet get sore'
- ❑ 'After sorting, I often have aches in my shoulders and lower back'

### MSD risks:

- ❑ Sorting involves working with arms above shoulder height.
- ❑ The fixed sorting height is not adjusted to the individual.
- ❑ The sorter is exposed to a static muscle load for several hours
- ❑ Twisted work postures.
- ❑ Work in outer positions.

**Exposed areas:**

- ❑ Neck / shoulders
- ❑ Upper / lower back
- ❑ Feet / knees

**Solutions:**

- ❑ Perforated rubber matted floor in sorting section.
- ❑ Correct working techniques when lifting.
- ❑ Well organised work area in sorting section involving short distances between work tasks.
- ❑ Rotation of tasks in the sorting section, such as change work side of the assembling line.
- ❑ Rotation of sorting tasks and other work in the orchard, such as pruning or harvesting apples.



Rotation of work tasks in the sorting section e g and change side of the assembling line.



Perforated rubber matted floor and well organised work area.

**Comments from the employer:**

- ❑ *'The sorters suffer less from aches and pains when working on rubber matted floor.*
- ❑ *'In order to attract and keep good workers, it is important to have a good work environment adjusted to the workers condition.*

**Comments from the ergonomist:**

- ❑ *'Lotta*

**Research references:**

Lundqvist, P. & . xxx

*Photos: Sara Kyrö Wissler, Rosmari Emanuelsson, Sweden, 2009*