

“The kangaroo bucket (bucket on a belt with material bottom) and a ladder”
(Picking fruits from trees)

Task Description: PL_6b (PL–Poland, 6 – Harvesting of tree fruit, outside, b–male, 55 years, field space 10 ha (9 ha apples, 0,5 ha pears, 0,5 ha plums)

- Manual handling and carrying the fruit bucket during picking apples from a tree
- Task connected with carrying, lifting and moving a fruit bucket
- Task connected with repetitive tasks – fruits reaching, picking and putting into a bucket
- Picking apples from the higher part of tree requires body posture with hands above the shoulder

Pictures:

AFTER



1.

AFTER



2.

Comments of the employee:

- | | |
|-------------------------------------|----------------------------------------------------------|
| <input checked="" type="checkbox"/> | Continuously repetition of the same gestures |
| <input checked="" type="checkbox"/> | Work height not in accordance with work posture |
| <input checked="" type="checkbox"/> | No helping devices available |
| <input checked="" type="checkbox"/> | Loads too heavy, carrying distance too far, too low, ... |

Comments of the employer: motivation regarding solution:

Working in position with hands above shoulder level, load of the upper limbs and lower back

Comments of the employee:

- “When I am picking apples from a higher level of tree I feel discomfort in upper limbs”
- “Discomfort in shoulders and lower back increases when I lift and carry heavy bucket with apples”
- “After all day work I feel strong pain in my lower back”

MSD risks:

- | | |
|---|--------------------|
| X | Posture |
| X | Force |
| X | Frequency/duration |

Exposed areas:

- | | |
|---|---------------|
| X | Neck/shoulder |
| X | Upper back |
| X | Lower back |

Solutions:

Add a kangaroo bucket as a supporting device for carrying a fruit bucket with apples. The kangaroo bucket is a modified fruit bucket on belt. Material bottom of the kangaroo bucket allows you to empty bucket without lifting and turning bucket over. Picker unties a string of material bottom allows to empty bucket. You can use a kangaroo bucket on a ladder during picking fruits from higher parts of tree.

Comments after implementing good practice solution:

- Performing this kind of task involves high load especially in shoulder, due to carrying heavy fruit buckets
- In order to decrease shoulder load you need to reduce carrying load, which can be achieved by a kangaroo bucket
- Using a ladder allows you to keep hands below the shoulder and reduce load of the shoulders