



# Manual handling solutions for the vegetable industry No. 7



## Packing vegetables from production lines

### What is the activity?

Packing vegetables while standing or sitting at a production line. Production lines include conveyors, tables and washing baths.

### What are the risks?

Packing vegetables from a production line into cartons, crates, bags and packets often involves awkward postures, repetitive reaching, bending, twisting and lifting of individual or bunches of vegetables; increasing the risk of musculoskeletal injuries of the shoulder, arms, neck and back. The task may also involve quality inspection requiring removal of part or whole vegetables, weighing of vegetables and the use of knives.

Work can be high paced and is often undertaken in cold and hot weather; on wet, slippery floors, uneven surfaces and in cramped conditions.

### What is the solution?

The risk of musculoskeletal injuries can be diminished by:

- Erecting a frame just above the production line that enables shallow boxes, crates or cartons to be placed in front of and angled toward the worker
- Fitting height adjustable stands beside the conveyor to support boxes, crates or cartons at a height that minimises bending and reach

- Incorporating weigh stations into the production line system
- Reducing reach and forward bending by having a production line width of less than 400mm; or
- Reducing reach and forward bending by providing space for the operator's feet under the conveyor (for standing work)
- Bringing the vegetables closer to the worker using mechanical guides or other means
- Having operators working on either side of the production line
- Setting the production line height so that vegetables or task is about 950mm, e.g. just below elbow height
- Automating the task if possible

Leg and back fatigue while standing can be reduced by the use of anti-fatigue matting (perforated rubber matting) and/or alternating between standing and sitting.

The provision of a foot rail under the production line may also provide opportunity for changes of posture whilst standing.

Seating should only be used where there is adequate leg and knee space under the production line.



Seating should have:

- Adjustable seat height consistent with space under the conveyor
- An adjustable backrest with lumbar support
- Swivel action
- Rounded seat edges

A broad foot support should be provided under the production line.

### Systems of work

The production line speed should be controlled to ensure workers are able to maintain a comfortable pace of work. Rotating tables or other forms of temporarily storing work in progress can be used to allow workers time to perform their tasks. In addition, job rotation or increased numbers of workers can help reduce specific physical loads.

Layout of production lines and workstations should aim for operators to be working directly in front of them, rather than to the side. Layout should also discourage reaching across the body to perform the task.

The packing shed and work areas should be designed so that workers can do their tasks without bumping into one another. Additional space may be required between workers using knives to reduce the risk of contact.

Drainage should be used to minimise water on the walking areas.

### Environment

Light should be sufficient to enable ease of inspection.

### The activity



### A solution

