

AGRICULTURAL SAFETY TOPICS

MATERIAL HANDLING DEVICES

Objective:

To be able to use tools and equipment effectively and safely to move farm materials.

Background:

Hand Trucks:

- Wheelbarrows, dolly trucks and two-wheeled hand trucks are all hand trucks.
- Two-wheeled hand trucks can lift and transport heavy, bulky objects short distances.
- Work gloves and safety shoes should be worn.
- Hand trucks should be equipped with canvas, leather or rubber knuckle guards to help prevent hand injuries.
- When loading, the heavy objects should be below the lighter ones, and the load kept as low as possible.
- The hand truck should not be overloaded, and the load should not obstruct your view.
- Use proper lifting techniques (Refer to Preventing Lifting and Overexertion) when lifting a load.
- The operator should push and balance the truck always walking forward.
- The truck should not be held in place with your foot.
- Two-wheeled hand trucks should be equipped with brakes.



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Conveyors:

- Generally, conveyors used in industry are roller, belt, screw, bucket, chain, overhead trolley, portable, mobile, tow, or assembly types.
- Moving parts should be guarded with wire mesh enclosures or railings.
- Rollers or pulleys at the ends of belt conveyors should be guarded to prevent fingers and hands from being drawn into pinch points.
- A shield, guard or housing should enclose each end and all other areas at floor level where workers could come in contact with moving parts.
- Avoid riding on conveyors, except those that incorporate platforms and control rooms for operating personnel.
- Conveyors should have conveniently located warning devices and emergency stop controls.
- Turn off power and lock the switch during maintenance.



Powered Industrial Trucks:

- Powered industrial trucks move material quickly and easily and save work and time.
- Know how to safely operate the trucks and to correctly react to every situation.
- Pay attention to maximum load limits and the condition of the bed – never overload.
- Check brakes, steering, controls, forks, hoist, warning devices and lights before and after each shift and report any malfunctions to supervisor.
- Back the truck down a ramp, but keep the load in front when going uphill.
- Tilt the forklift masts back when driving the lift and keep head, arms and legs inside.
- Keep the forks about 10-15 cm (4 to 6 inches) above the ground.
- Do not lift people.
- Sound the horn at a blind corner.
- Check clearances when loading or unloading.



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Cranes and Derricks:

- Only trained operators are permitted to run cranes.
- The rated load must be plainly marked on each side of the crane and the crane must never be overloaded.
- Never work or stand underneath a crane that is moving material.
- If operating, do not swing loads over workers.
- Keep hoisting chains and ropes free from kinks.
- Use a load block hook with a sling – do not wrap chains or ropes around loads.
- Operators should make sure the sling clears all obstacles.
- Standard hand signals for boom cranes should be understood by both the operator and the signaler.
- Crane operators should never remove their hands and feet from the controls while a load is suspended.

Review the Following Points:

- All employees should be trained before operating machinery.
- Watch for coworkers when completing work tasks.
- Make sure all loads are balanced when moving.
- Keep all screens and safety shields in place.
- Use standard hand signals for communication.

Based upon: Ohio State University Extension. *Material Handling*. Retrieved from website <http://ohioline.osu.edu/atts/modules.html>

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