

# International Hazard Datasheets on Occupation



## Poultry Farm Worker

### What is a Hazard Datasheet on Occupation?

This datasheet is one of the International Datasheets on Occupations. It is intended for those professionally concerned with health and safety at work: occupational physicians and nurses, safety engineers, hygienists, education and Information specialists, inspectors, employers' representatives, workers' representatives, safety officers and other competent persons.

This datasheet lists, in a standard format, different hazards to which poultry farm workers may be exposed in the course of their normal work. This datasheet is a source of information rather than advice. With the knowledge of what causes injuries and diseases, it is easier to design and implement suitable measures towards prevention.

This datasheet consists of four pages:

- Page 1: Information on the most relevant hazards related to the occupation.
- Page 2: A more detailed and systematized presentation on the **different hazards** related to the job with indicators for preventive measures (marked as numbered shields and explained on the third page).
- Page 3: Suggestions for **preventive measures** for selected hazards.
- Page 4: **Specialized information**, relevant primarily to occupational safety and health professionals and including information such as a brief job description, a list of tasks, notes and references.

---

### Who is a poultry farm worker?






A worker who works on a farm where domestic fowl are bred and raised for eggs and/or meat.

---

### What is dangerous about this job?

- Poultry Farm Workers may contract, from the fowl in their care, infectious diseases that are common to fowl and man.
- The atmosphere in poultry farms usually contains significant levels of agricultural dust and toxic gases, which put the workers at a health risk.
- Some chemicals used at poultry farms (for disinfection, etc.) may cause harm to workers' health.
- The Poultry Farm Worker's work is often physically difficult and involves handling heavy loads, uncomfortable postures and movements. This may cause traumas (including falls), back, arms and hands pains.

**Hazards related to this job**

|   |   |                                |
|---|---|--------------------------------|
| <p><b>Accident hazards</b></p>                                      | <ul style="list-style-type: none"> <li>• Sprains and strains from slips, trips, and falls when carrying heavy loads (bags of feed), working in congested and slippery areas soiled with excreta</li> <li>• Eye and skin irritation from contamination of broken skin or from splashing of irritants, allergens, other hazardous fluids (disinfectants) during vaccinating/ medicating (in feed/water), mixing of feed, transporting feed/medicines, or spraying vaccines, disinfectants, and fumigating agents</li> <li>• Burns from exposures to hot surfaces (e.g. incubators, debeaking tools)</li> </ul>  | <p>1</p> <p>2 3</p>            |
| <p><b>Physical hazards</b></p>                                      | <ul style="list-style-type: none"> <li>• Exposure to high noise levels particularly in confinement systems</li> <li>• Heat exhaustion, heat-induced dermatosis, sun-induced dermatosis and cold exposure due to variable thermal conditions of year long outdoor work or high temperature/humidity in confined systems</li> </ul>   | <p>4</p>                       |
| <p><b>Chemical hazards</b></p>                                      | <ul style="list-style-type: none"> <li>• Acute and chronic respiratory irritation and disease from exposure to agricultural dusts. Agricultural dusts are primarily organic (feathers, dander, microorganisms etc.), but inorganic dusts, like crystalline silica, are also found in confinement house dusts</li> <li>• Immunologically mediated diseases (e.g. rhinopharyngitis, atopic asthma) and hypersensitivity (immediate and delayed) reactions (e.g. extrinsic allergic alveolitis/ hypersensitivity pneumonitis) from exposure to dusts</li> <li>• Acute and chronic dermal, ocular and respiratory diseases from exposure to several toxic and asphyxiating gases common especially in confinement systems including ammonia (NH3), released during microbial degradation of manure; carbon dioxide (CO2) from animal respiration, manure fermentation, and gas flame heaters; other gases include CO, H2S, CH4, SO2, and NOx (manure decomposition and fuel combustion)</li> <li>• Exposure to disinfectants, detergents, formaldehyde, ammonia solutions, sodium carbonate and sodium hypochlorite.</li> <li>• Formaldehyde, a suspect carcinogen, is often used as a disinfectant in hatcheries and brooder houses</li> </ul> | <p>5</p> <p>3 5</p> <p>6 7</p> |
| <p><b>Biological hazards</b></p>                                  | <ul style="list-style-type: none"> <li>• Zoonotic diseases and infections naturally transmitted between vertebrate animals and man are common. These include infective agents such as viruses, bacteria, fungi (histoplasmosis) rickettsia and other microbes (psihicosis) as well as endotoxins</li> </ul>   |                                |
| <p><b>Ergonomic, psychosocial and organizational factors</b></p>  | <ul style="list-style-type: none"> <li>• Back pains and other musculoskeletal problems resulting from overexertion and wrong postures during lifting and moving of animals and feed bags, shoveling of wastes, etc.</li> </ul>  | <p>8</p>                       |

### Preventive measures

---

- 1 Wear safety shoes with non-skid soles
  - 2 Wear appropriate eye protection; consult a safety supervisor or a supplier
  - 3 Protect hands with chemical-resistant gloves; if impractical, use a barrier cream
  - 4 Install effective exhaust ventilation and air conditioning to prevent air contamination and heat or cold stress
  - 5 Wear a respirator to avoid inhalation of dust or aerosols
  - 6 Replace formaldehyde as a disinfectant with less harmful substitutes available on the market
  - 7 Maintain a high level of personal hygiene. At the end of work, shower and change clothes. Do not take work-soiled clothing home
  - 8 Learn and use safe lifting and moving techniques for heavy or awkward loads; use mechanical aids to assist in lifting
-

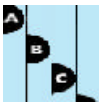
---

**Specialized information**


---

**Synonyms** Poultry farm worker (egg or meat); chicken farm worker; turkey farm worker; poultry farm laborer; brooder farm worker; pullet farm worker; duck farm worker.

**Definitions and/or description** Occupation concerned with the breeding, raising, gathering, and caring of domestic fowl and collecting their products. Performs any combinations of the following duties concerned with raising poultry for eggs and meat: Removes chicks from shipping cartons and places them in brooder houses. Cleans and disinfects poultry houses, cages, and nests. Spreads bedding materials. Cleans droppings from floor. Fills feeders and water containers. Vaccinates via drinking water, injection, or dusting of air. Inspects poultry for diseases and removes weak, ill and dead poultry from flock. Sexes livestock. Candles, collects, inspects, and packs eggs; selects, weighs, and crates fryers and pullets; records total packed; and prepares breeding reports. Monitors feed, water, illumination, and ventilation systems. Cleans, adjusts, and replaces systems parts using hand tools. May cut off tips of beaks.



**Related and specific occupations** Agricultural workers; livestock confinement workers; poultry inseminator; caponizer; poultry vaccinator; chicken sexer; poultry debeakers; poultry breeders; poultry hatchery worker; poultry tender; poultry abattoirs.

**Tasks** Administering (vaccines, medicines); assisting; breeding (animals); carrying; cleaning; collecting (eggs); disposing (waste); documenting; feeding; handling (animals); inspecting lifting; loading; maintaining; monitoring; packing; pulling/pushing; repairing; restraining (animals); sorting; spreading (bedding); storing; transporting; watering.

**Primary equipment used** Crates; nebulizers (for vaccinating); fumigators; automatic feeding/watering devices; layer nests; conveyors (feed/animals); hand tools (for repairing); heated trimmers (debeaking); incubators.

**Workplaces where the occupation is common** Poultry farms.

**Notes**

1. Potential synergistic effects on the respiratory system from exposures to gases, dust, and smoking.
2. In general, farmers had significantly elevated risks for several cancers ' including lip, stomach, pancreas, nasal sinus, prostate, leukemia, non-Hodgkin's lymphoma, Hodgkin's disease, and multiple myeloma. Exposure to poultry has been shown to be a risk factor for leukemia.
3. The workplace and the residence are often co-located. Thus, hazards that effect the worker also effect the non-working family, including children. Often, sanitary conditions are unsatisfactory in these co-located dwellings.
4. Many undocumented migrant farm workers are less able to protect themselves from occupational hazards due to language barriers, substandard education, seasonal work, poor hygiene, and lack of contact with authorities.



**References** Encyclopaedia of Occupational Health and Safety, 4th Ed., ILO, Geneva, 1998, Vol.3, p.95-9 - 95-12.



Amadori D, Nanni R, Falcini F, Saragoni A, Tison V, Callea A, Scarpi E, Ricci M, Riva N, Buiatti E: Chronic Lymphocytic Leukaemias and Non-Hodgkin's Lymphomas by Histological Type in Farming-animal Breeding Workers: a Population Case-Control Study Based on Job Title. *Occ Env Med* 52:374-379, 1995.

Clark S, Rylander R, Larsson L: Airborne Bacteria, Endotoxin, and Fungi in Dust in Poultry and Swine Confinement Buildings. *Am Ind Hyg Assoc J* 44:537-541, 1983.

Donham KJ: Hazardous Agents in Agricultural Dusts and Methods of Evaluation. *Am J Ind Med* 10:205-220, 1986.

Dosman JA, Cockcroft DW (editors): Principles of Health and Safety in Agriculture. CRC Press, Inc., Boca Raton, FL, 1989.

Hagar L, Schutz A, Hallberg T, Sjöholm A: Health Effects of Exposure to Endotoxins and Organic Dust in Poultry Slaughter-House Workers. *Int Arch Occ Env Hlth* 62:15 9-164, 1990.

Reynolds SJ, Parker D, Vesley D, Smith D, Woellner R: Cross-sectional Epidemiological Study of Respiratory Disease in Turkey Farmers. *Am J Ind Med* 24:713-722, 1993.

Zuskin E, Kanceljak B, Mustajbegovic J, Schachter E, Stilinovic L: Respiratory Symptoms and Immunological Status in Poultry Food Processing Workers. *Arch Occ Env Hlth* 66:339-342, 1994.

Freedman, B.: Sanitarian's Handbook, 4th Ed., Peerless Publ., New Orleans, 1977.