

WORKPLACE NO. 2

FARMER

RISK ASSESSMENT

WORK PROCESS

Activity consists of:

- Checking technical status of any machine before use.
- Follows line status and intervenes if necessary.
- Correctly utilizing tools and other machinery, as per operating manual.
- Feeding raw material and packaging materials to equipment.
- Supervising automated machinery.
- Places products inside boxes or other packaging materials.
- Taking responsibility of cleaning the workplace regularly.
- Taking responsibility of utilizing any type of equipment with optimal usage.
- Following manuals and any other instructions given to his area of responsibility.

WORK SYSTEM COMPONENTS

WORK MEANS

- Hand tools and feronery.
- Raw and packaging materials.
- Trolleys
- Euro pallets.
- Technical equipment (packaging and breeding).
- Buckets.
- Electrical water bin.
- Refrigerated containers.
- Hand sieves.
- Funnel cones.

WORK ENVIRONMENT

Farmers' activities happen inside the farm and outside its premises, in the fenced area.

Microclimate differs from case to case. there are areas where currents are higher (i.e. around the unloading docks), there are areas where microclimate is not affected by the season as there are HVAC systems in place.

Depending on the season and the area where the farmers are working, temperatures can be higher or lower than legal range.

Artificially and naturally illuminated areas.

For short periods of time (i.e. when working in production areas), environment can be very loud due to the process equipment or other heavy machinery, forklifts etc.

WORK TASKS

Operations:

- Cleans workplace outside and inside the halls.
- Operates automated equipment in maternity or outer water pools.
- Operates irrigation system.
- Knows the characteristics of the chemicals in the farm and follows with great attention its safety rules and restrictions.
- Knows the technological process he is responsible for.
- Presents himself or herself to work with full working capacity to follow his/her work tasks.
- Takes responsibility of equipment working in normal operating conditions.
- Takes responsibility of following standard working procedures.
- Follows direct orders from managers or other hierarchic members.
- Operates automated equipment inside packaging areas.

Any farmer is forbidden to use machinery or other lifting equipment that he/she is not qualified for.

PERFORMER

Farmer is a non-qualified worker and is trained specific standard operating procedures in order to perform in this specific domain.

He/she has to be physically and psychically capable to do the job (medical statement).

He/she is responsible for his/her own errors, mistakes or negligences.

RISK FACTORS

WORK MEANS

➤ MECHANICAL RISK FACTORS

- Blocking or crushing superior members when working with automated equipment.
- Hitting or crushing any body part when entering in contact with loading/unloading operations.
- Slipping or falling from same level due to inappropriate condition of path ways or from height due to errors in following work tasks.
- Objects falling from height.
- Projection of particles or objects.
- Stinging or cutting members when handling material or when using inappropriate tools.

➤ ELECTRICAL RISK FACTORS

- Electrocution due to touching visible (not insulated) wires while working with machinery.
- Electrocution due to touching metallic equipment parts that are accidentally under voltage (supports, racks etc.) and not earthed or with neutral wire disconnected.

➤ CHEMICAL RISK FACTORS

- Caustic substances – chemical burns.

- Dangerous substances handling (methane or CO etc.) – risk of direct contact after packaging damage, falling goods from shelves, etc.

WORK ENVIRONMENT

➤ **PHYSICAL RISK FACTORS**

- Temperature can be too high or too low during summer or winter respectively or during malfunctioning of HVAC systems – risk of heart/respiratory issues
- Air current/pressures due to industrial doors or loading docks opening – risk of heart/respiratory issues
- Natural disasters – risk of earthquake
- Working in noisy environment (production, packaging, truck area etc.)

WORK TASK

➤ **PSYCHICAL OVERWHELM**

- Large work volume or increased rhythm of work during some periods of time (i.e. multiple deliveries at the same time, large trucks that are on clock etc.), that require special attention.
- Stress due to conflictual situations at work, psychological harassment from managers (intimidation, humiliation etc.), lack of communication or consultation – can result in accident of own person or other colleagues.

WORKER

➤ **ERRORS**

- Inappropriate organization of the workplace (without warning signs, blocked pathways etc.).
- Not following through own responsibilities (supervision or control of the working equipment).
- Working or performing a task before being properly trained to do this type of job.
- Inappropriate maneuvers of raw and packaging materials.
- Inappropriate use of the safety systems of any equipment in use.
- Wrong positioning of pallets, tools, objects.
- Utilizing tools with defects.
- Slipping or falling from same level due to inappropriate condition of path ways.
- Leaving workplace without safety measures.
- Performing tasks which are not in his/her responsibility, without asking for permission.
- Entering or staying into dangerous or hazardous areas (i.e. where forklifts unload materials).
- Lack of synchronizing with other co-workers when manipulating or handling materials.
- Absence of some prevention/preparation steps when performing any given task.
- Using tools or any piece of equipment without checking its status and condition.
- Not following safety rules and procedures.
- Not following fire safety rules and procedures.
- Using inappropriate or non-supervised sources of heating.
- Presence at work under inappropriate condition (fatigue, alcohol use, disease etc.)

➤ **NEGLIGENCE**

- Forgetting to check technical status of the equipment before use – accident risk.
- Forgetting to use personal protective equipment or other engineering safety measures/devices.

| *** TROUT FARM | | EVALUATION OF WORKPLACE POSITION NO. 2 | | DURATION OF EXPOSURE TO RISKS: 8 h/day | | |
|------------------------|-------------------------|--|---------------------|---|-------------|------------|
| NON-QUALIFIED WORKER | | | | EVALUATION TEAM: | | |
| FARMER | | | | | | |
| WORK SYSTEM COMPONENTS | RISK FACTORS | CONCISE DESCRIPTION OF RISK FACTORS, INCLUDING PARAMETERS WHERE APPLICABLE | WORST CASE SCENARIO | GRAVITY | PROBABILITY | RISK LEVEL |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| WORK MEANS | MECHANICAL RISK FACTORS | Blocking or crushing superior members when working with automated equipment. | Dis. Gr. II | 5 | 2 | 4 |
| | | Hitting or crushing any body part when entering in contact with loading/unloading operations. | DEATH | 7 | 1 | 3 |
| | | Slipping or falling from same level due to inappropriate condition of path ways or from height due to errors in following work tasks. | Dis. Gr. II | 5 | 2 | 4 |
| | | Objects falling from height. | DEATH | 7 | 1 | 3 |
| | | Projection of particles or objects. | Dis. Gr. II | 5 | 2 | 4 |
| | | Stinging or cutting members when handling material or when using inappropriate tools. | Dis. Gr. II | 5 | 2 | 4 |
| | ELECTRICAL RISK FACTORS | Electrocution due to touching visible (not insulated) wires while connecting charger to forklift. | DEATH | 7 | 2 | 4 |
| | | Electrocution due to touching metallic equipment parts that are accidentally under voltage (supports, racks etc.) and not earthed or with neutral wire disconnected. | DEATH | 7 | 1 | 3 |
| | CHEMICAL RISK FACTORS | Caustic substances – chemical burns. | LTI 3-45 days | 2 | 5 | 3 |
| | | Dangerous substances handling (methane or CO etc.) – risk of direct contact after packaging damage, falling goods from shelves, etc. | LTI 3-45 days | 2 | 5 | 3 |
| WORK ENVIRONMENT | PHYSICAL RISK FACTORS | Temperature can be too high or too low during summer or winter respectively or during malfunctioning of HVAC systems – risk of heart/respiratoy issues. | LTI 3-45 days | 2 | 5 | 3 |
| | | Air current/pressures due to industrial doors or loading docks opening – risk of heart/respiratoy issues. | LTI 3-45 days | 2 | 5 | 3 |
| | | Natural disasters – risk of earthquake. | DEATH | 7 | 1 | 3 |
| | | Working in noisy environment (production, packaging, truck area etc.). | LTI 3-45 days | 2 | 1 | 1 |
| WORK TASKS | PSYCHICAL OVERWHELM | Large work volume or increased rythm of work during some periods of time (i.e. multiple deliveries at the same time, large trucks that are on clock etc.), that require special attention. | LTI 3-45 days | 2 | 5 | 3 |
| | | Stress due to conflictual situations at work, psychological harassment from managers (intimidation, humiliation etc.), lack of communication or consultation – can result in accident of own person or other colleagues. | LTI 3-45 days | 2 | 5 | 3 |
| WORKER | ERRORS | Inappropriate organization of the workplace (without warning signs, blocked pathways etc.). | Dis. Gr. I | 6 | 2 | 4 |
| | | Not following through own responsibilities (supervision or control of the working equipment). | Dis. Gr. II | 5 | 2 | 4 |
| | | Working or performing a task before being properly trained to do this type of job. | Dis. Gr. I | 6 | 2 | 4 |
| | | Inappropriate maneuvers of raw and packaging materials. | Dis. Gr. III | 4 | 2 | 3 |

| | | | | | |
|-------------------|--|--------------------|---|---|---|
| | Inappropriate use of the safety systems of any equipment in use. | Dis. Gr. III | 4 | 2 | 3 |
| | Wrong positioning of pallets, tools, objects. | Dis. Gr. III | 4 | 2 | 3 |
| | Utilizing tools with defects. | LTI 45-180 days | 3 | 2 | 2 |
| | Slipping or falling from same level due to inappropriate condition of path ways. | Dis. Gr. III | 4 | 3 | 4 |
| | Leaving workplace without safety measures. | LTI 45-180 days | 3 | 3 | 3 |
| | Performing tasks which are not in his/her responsibility, without asking for permission. | DEATH | 7 | 2 | 4 |
| | Entering or staying into dangerous or hazardous areas (i.e. where forklifts unload materials). | DEATH | 7 | 1 | 3 |
| | Lack of synchronizing with other co-workers when manipulating or handling materials. | Dis. Gr. III | 4 | 2 | 3 |
| | Absence of some prevention/preparation steps when performing any given task. | DEATH | 7 | 1 | 3 |
| | Using tools or any piece of equipment without checking its status and condition. | DEATH | 7 | 2 | 4 |
| | Not following safety rules and procedures. | Dis. Gr. II | 5 | 2 | 4 |
| | Not following fire safety rules and procedures. | Dis. Gr. III | 4 | 1 | 2 |
| | Using inappropriate or non-supervised sources of heating. | DEATH | 7 | 1 | 3 |
| | Presence at work under inappropriate condition (fatigue, alcohol use, disease etc.) | Dis. Gr. III | 4 | 2 | 3 |
| NEGLIGENCE | Forgetting to check technical status of the equipment before use – accident risk. | Dis. Gr. III | 4 | 3 | 4 |
| | Forgetting to use personal protective equipment or other engineering safety measures/devices. | Dis. Gr. III | 4 | 1 | 3 |

Global risk level is:

$$N_{rg2} = \frac{\sum_{i=1}^{36} R_i r_i}{\sum_{i=1}^{36} r_i} = \frac{0(7 \times 7) + 0(6 \times 6) + 0(5 \times 5) + 13(4 \times 4) + 20(3 \times 3) + 2(2 \times 2) + 1(1 \times 1)}{0 \times 7 + 0 \times 6 + 0 \times 5 + 13 \times 4 + 20 \times 3 + 2 \times 2 + 1 \times 1} = \frac{397}{117} = 3,39$$

PARTIAL RISK LEVELS PER FACTORS

Farmer

Global risk level: 3,39

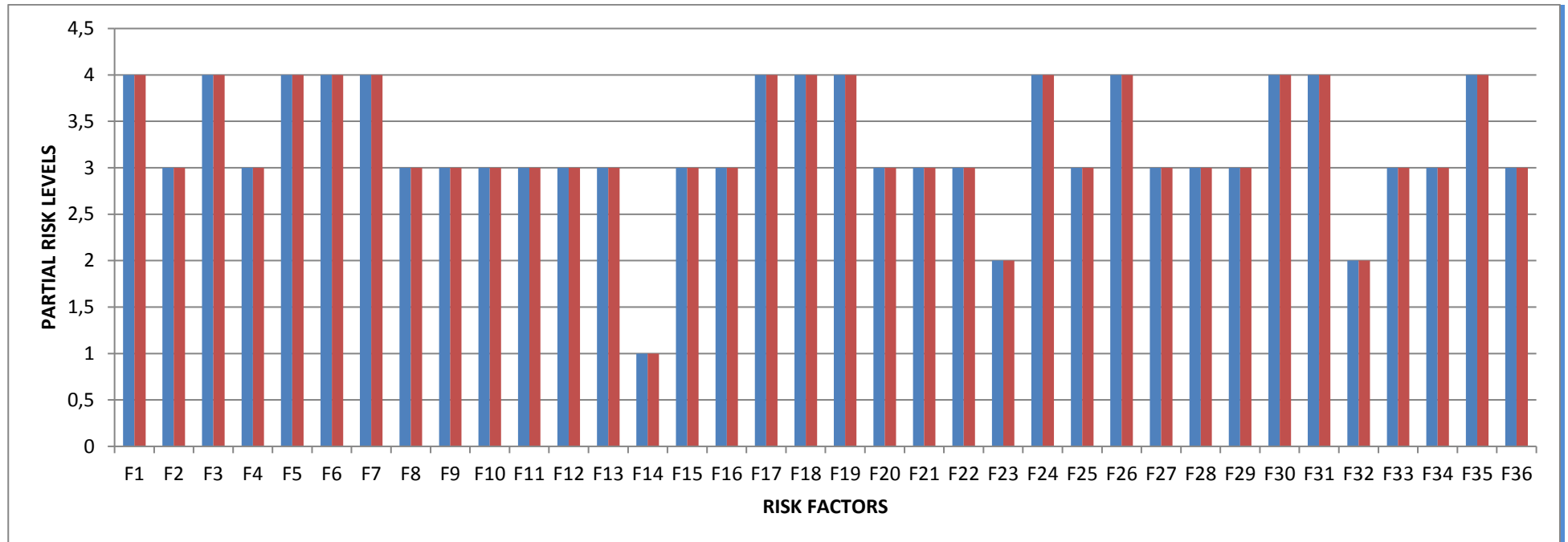


FIGURE LEGEND

| | |
|-----|--|
| F1 | Blocking or crushing superior members when working with automated equipment. |
| F2 | Hitting or crushing any body part when entering in contact with loading/unloading operations. |
| F3 | Slipping or falling from same level due to inappropriate condition of path ways or from height due to errors in following work tasks. |
| F4 | Objects falling from height. |
| F5 | Projection of particles or objects. |
| F6 | Stinging or cutting members when handling material or when using inappropriate tools. |
| F7 | Electrocution due to touching visible (not insulated) wires while connecting charger to forklift. |
| F8 | Electrocution due to touching metallic equipment parts that are accidentally under voltage (supports, racks etc.) and not earthed or with neutral wire disconnected. |
| F9 | Caustic substances – chemical burns. |
| F10 | Dangerous substances handling (methane or CO etc.) – risk of direct contact after packaging damage, falling goods from shelves, etc. |
| F11 | Temperature can be too high or too low during summer or winter respectively or during malfunctioning of HVAC systems – risk of heart/respiratory issues. |
| F12 | Air current/pressures due to industrial doors or loading docks opening – risk of heart/respiratory issues. |
| F13 | Natural disasters – risk of earthquake. |
| F14 | Working in noisy environment (production, packaging, truck area etc.). |
| F15 | Large work volume or increased rhythm of work during some periods of time (i.e. multiple deliveries at the same time, large trucks that are on clock etc.), that require special attention. |
| F16 | Stress due to conflictual situations at work, psychological harassment from managers (intimidation, humiliation etc.), lack of communication or consultation – can result in accident of own person or other colleagues. |
| F17 | Inappropriate organization of the workplace (without warning signs, blocked pathways etc.). |
| F18 | Not following through own responsibilities (supervision or control of the working equipment). |
| F19 | Working or performing a task before being properly trained to do this type of job. |
| F20 | Inappropriate maneuvers of raw and packaging materials. |
| F21 | Inappropriate use of the safety systems of any equipment in use. |
| F22 | Wrong positioning of pallets, tools, objects. |
| F23 | Utilizing tools with defects. |
| F24 | Slipping or falling from same level due to inappropriate condition of path ways. |
| F25 | Leaving workplace without safety measures. |
| F26 | Performing tasks which are not in his/her responsibility, without asking for permission. |
| F27 | Entering or staying into dangerous or hazardous areas (i.e. where forklifts unload materials). |
| F28 | Lack of synchronizing with other co-workers when manipulating or handling materials. |
| F29 | Absence of some prevention/preparation steps when performing any given task. |
| F30 | Using tools or any piece of equipment without checking its status and condition. |
| F31 | Not following safety rules and procedures. |
| F32 | Not following fire safety rules and procedures. |
| F33 | Using inappropriate or non-supervised sources of heating. |
| F34 | Presence at work under inappropriate condition (fatigue, alcohol use, disease etc.) |
| F35 | Forgetting to check technical status of the equipment before use – accident risk. |
| F36 | Forgetting to use personal protective equipment or other engineering safety measures/devices. |

LIST OF MEASURES FOR: FARMER

| Item | RISK FACTOR | Risk Level | Proposed Measures |
|------|---------------------|------------|--|
| 0 | 1 | 2 | 3 |
| 1. | MEANS OF PRODUCTION | 4 | <p>Technical measures Work will be done only after checking status of machinery, confronted with technical documentation. Electrical tools will be installed with safety protection, with log out/tag out systems to block its functioning when improper condition. Hand tools will be repaired to be always without cracks or physical non conformities.</p> <p>Organizational measures Warning signs will be mounted everywhere needed in production area. Improvizations are strictly forbidden.</p> |
| 2. | WORK ENVIRONMENT | 3 | <p>Organizational measures PPE will be worn depending on the season (warm, cool, etc.)</p> |
| 3. | WORK TASK | 4 | <p>Organizational measures Tasks will be performed under supervisor's guidelines which will take responsibility for assuring OSH rules and restrictions.</p> |
| 4. | WORKER | 4 | <p>Technical measures All tools with defects will be repaired. All electrical installation will be continuously checked in order to avoid malfunctioning of electric tools.</p> <p>Organizational measures Warning signs and information boards will always be in place. PPE will always be available and regularly checked for defects. Other activities which are not covered in any SOP will be strictly forbidden. Supervision of tasks will be performed only by qualified personnel.</p> |

SUMMARY

The global risk level calculated for this work place, no. 2 **Farmer** is **3.39**, which ranks it as acceptable risk work place, as it is not reaching maximum limit of 3.50.

The result of the evaluation is that 13 risk factors reach minimum 4 as the grade for partial risk level.

Risk factors that are ranked as “not accepted” are:

| Item | RISK FACTOR | PARTIAL RISK LEVEL |
|------|---|--------------------|
| 1. | Blocking or crushing superior members when working with automated equipment. | 4 |
| 2. | Slipping or falling from same level due to inappropriate condition of path ways or from height due to errors in following work tasks. | 4 |
| 3. | Projection of particles or objects. | 4 |
| 4. | Stinging or cutting members when handling material or when using inappropriate tools. | 4 |
| 5. | Electrocution due to touching visible (not insulated) wires while connecting charger to forklift. | 4 |
| 6. | Inappropriate organization of the workplace (without warning signs, blocked pathways etc.). | 4 |
| 7. | Not following through own responsibilities (supervision or control of the working equipment). | 4 |
| 8. | Working or performing a task before being properly trained to do this type of job. | 4 |
| 9. | Slipping or falling from same level due to inappropriate condition of path ways. | 4 |
| 10. | Performing tasks which are not in his/her responsibility, without asking for permission. | 4 |
| 11. | Using tools or any piece of equipment without checking its status and condition. | 4 |
| 12. | Not following safety rules and procedures. | 4 |
| 13. | Forgetting to check technical status of the equipment before use – accident risk. | 4 |

In order to minimize the effects of these 13 risk factors, there are measures proposed in the **List of measures**.

In terms of categories, risk factors are as follows:

- 10 risk factors of **means of production, 27 %**
- 4 risk factors of **work environment, 12 %**
- 2 risk factors of **work tasks, 6 %**
- 20 risk factors of **worker, 55 %**

It can be stated that, from evaluation, 7 risk factors can result in irreversible effects to the workers, mainly death, and they represent 20 % of the total risk factors.

PIE CHART OF RISK FACTORS
PROFESSION NO. 2 – FARMER
GLOBAL RISK LEVEL: 3,39

