

Pork Production Technician Level 2

Pork Production Technician

Unit: A5 Communications

Level: Two

Duration: 10 hours

Theory: 10 hours

Practical: 0 hours

Overview:

This unit of instruction is designed to provide the apprentice with effective communication skills for on the job. Effective teamwork and time management skills will also be developed. The apprentice will gain the ability to work with people in an organization, understand how an individual's attitudes, situation and behaviour affect teams, and understand how to be part of a team. Further to this, the communications unit will provide the apprentice with an opportunity to explore and use the problem solving skills through practice and analysis.

Objectives and Content:	<u>Percent of Unit Mark (%)</u>
1. Develop interpersonal skills.	25%
a. Listening skills	
• Active listening	
b. Speaking skills	
• Effective communication	
c. Cooperation	
• Understanding others	
• Open-mindedness	
• Appreciative of ethnic diversity in the workplace	
2. Develop skills in conflict resolution.	25%
a. Understanding conflicts	
• Cause	
b. Preventing conflicts	
• Listening/speaking/cooperation	
• Understanding personalities	
c. Resolution	
• Compromise	
• Win/lose	
• Avoidance	
• Accommodating	
• Problem solving	

- 3. Develop teamwork skills** **25%**
- a. Reporting structure
 - Understand roles and information flow
 - Participates in staff meetings
 - b. Assists where needed
 - Recognizing needs
 - Benefits of teamwork
- 4. Practice the problem solving process and critical thinking skills** **25%**
- a. Observation skills
 - Five senses
 - Situation analysis
 - Time management theory
 - Prioritizing tasks
 - b. Organizational skills
 - Communication of daily needs
 - Prioritizing tasks
 - c. Decision making skills
 - Problem solving process
 - Participating in the process
 - Level of responsibility

Pork Production Technician

Unit: A6 Recommendations and Regulations of Pork Production Industry

Level: Two

Duration: 7 hours

Theory: 7 hours

Practical: 0 hours

Overview:

This unit of instruction is designed to provide the pork production technician with an overview of the issues facing the pork industry such as food safety, animal welfare and nuisance issues. Various applicable programs and regulations will be reviewed such as the Canadian Quality Assurance Program and the Manitoba Livestock Manure and Mortalities Management Regulation.

Objectives and Content:	<u>Percent of Unit Mark (%)</u>
1. Describe the public perception of the pork production industry.	30%
a. Health and safety issues	
b. Animal welfare issues and concerns	
c. Nuisance issues	
d. Resources	
2. Describe the Canadian Quality Assurance™ program	50%
a. Hazard Analysis Critical Control Points (HACCP)	
• Chemical hazards	
• Physical hazards	
• Biological hazards	
b. Good production practices	
• Purchasing	
• Animal handling	
• Sanitation and building design	
• Medical supplies: use and storage	
• Feed handling	
• Biosecurity	
• Water	
• Shipping, marketing and transport	
• Personnel training	
• Deviation and notification	
c. Animal Care Assessment tool (ACA)	
• Stockmanship	
• Care of animals	
• Equipment	

- 3. Review Manitoba's Livestock Manure and Mortalities Management Regulation 20%**
- a. Carcass disposal methods
 - Rendering
 - Temporary storage
 - Incineration
 - Burial
 - Composting
 - b. Odour reduction techniques
 - In the barn
 - At the storage area
 - During application
 - c. Manure management planning
 - Storage
 - Calculating animal units
 - Application
 - d. Related issues
 - Manure treatment
 - Expansion of hog farms
 - Water quality

Pork Production Technician

Unit: A7 Production Record Keeping

Level: Two

Duration: 35 hours

Theory: 30 hours

Practical: 5 hours

Overview:

In this unit apprentices will learn the importance of performance reports and what they mean. Implementing and evaluating revised procedures based on performance reports will also be discussed. Apprentices will also learn about production efficiency and profitability through the evaluation of both herd and staff performance along with the efficiency of procedures used in the pork production unit. The apprentice will also be provided with an overview of the importance of recordkeeping systems in a pork production facility and will have experience using computers to construct spreadsheets with a window-based environment. Current recordkeeping software will also be introduced. Through practice and continued use, these recordkeeping systems will become an invaluable tool for the pork production technician.

Objectives and Content:

Percent of Unit Mark (%)

- | | |
|--|------------|
| 1. Compare actual performance with production targets. | 25% |
| a. Production goals | |
| b. Parameters to monitor | |
| c. Benchmarks | |
| d. Calculate production parameters | |
| 2. Assess production efficiency | 15% |
| a. Monitoring | |
| 3. Assist in implementing improvements | 15% |
| a. Problem solving process | |
| b. Participation in staff meetings | |
| c. Implementation | |
| d. Assessment/Evaluation | |
| 4. Develop skills in technology and computers in the workplace. | 10% |
| a. Spreadsheets | |
| b. Current and future advancements | |
| 5. Identify the purpose of recordkeeping | 5% |
| a. Importance | |
| b. Uses | |

- 7. Develop skills for keeping records. 25%**
 - a. Pig events
 - b. Pig inventory
 - c. Barn supply inventory

- 8. Review available pork production software. 5%**
 - a. Pig CHAMP
 - b. Pig Win
 - c. Other programs

Pork Production Technician

Unit: B5 Pig Health Care

Level: Two

Duration: 25

Theory: 15 hours

Practical: 10 hours

Overview:

This unit of instruction is designed to cover the basics of pig health care. The apprentice will learn to recognize characteristics and behaviour of both healthy and unhealthy pigs. Health care product usage and administration and euthanasia techniques will be discussed. The apprentice will gain an overview of common pig diseases and correct terminology of abnormal signs.

Objectives and Content:	<u>Percent of Unit Mark (%)</u>
1. Understand the development and transmission of pig diseases.	25%
a. Infectious agents	
b. Non-infectious agents	
c. Hygiene	
2. Describe the characteristics of healthy and unhealthy pigs.	30%
a. Signs of pig diseases and disorders	
b. Identifying injuries	
c. Taking pig temperature	
d. Intervention	
• Timing	
• Treatment techniques	
• Euthanasia techniques	
• recordkeeping	
3. Describe health care programs.	25%
a. Barn's health and treatment protocols	
b. Vaccination	
• Techniques	
• Products used	
c. Deworming	
• Techniques	
• Products used	
d. Medicated feed	

- 4. Describe animal health products administration and handling methods. 10%**
- a. Animal health products usage
 - Withdrawal times
 - Extra-label (off-label) drug usage
 - b. Health product administration techniques
 - Injection
 - Oral
 - c. Storage and handling of animal health products and equipment
 - Expiry dates
 - Temperature
 - Sanitation procedures
 - Personal safety hazards
- 5. Demonstrates appropriate health care techniques. 10%**

Pork Production Technician

Unit: B6 Nursery

Level: Two

Duration: 19 hours

Theory: 14 hours

Practical: 5 hours

Overview:

This unit of instruction is designed to cover the basics of nursery care including pig grouping, pig growth and development and meeting production targets. This unit will focus on giving the apprentice an understanding of the changes experienced by pigs during this stage of production and how these changes can impact production.

Objectives and Content:	<u>Percent of Unit Mark (%)</u>
1. Describe growth and development requirements of a pig	30%
a. Anatomy and physiology of newly weaned pig <ul style="list-style-type: none">• Enzyme production• Stresses• Immunity	
b. Monitoring growth	
c. Nutritional requirements	
d. Environmental requirements <ul style="list-style-type: none">• Temperature• Ventilation	
e. Individual pig health/treatments	
2. Describe pig grouping techniques	15%
a. Pig space requirements <ul style="list-style-type: none">• Pen space• Water access• Feeder space	
b. Pig flow requirements <ul style="list-style-type: none">• Numbers per pen or room	
c. Barn flow requirements <ul style="list-style-type: none">• Timing of fill• Timing of shipping	
d. Pig behaviour when regrouping <ul style="list-style-type: none">• Establishing hierarchy	
e. Barn protocol for establishing groups <ul style="list-style-type: none">• Prioritizing	

- | | |
|---|------------|
| 3. Explain how to organize barn tasks. | 15% |
| a. Task lists | |
| b. Work schedules | |
|
 | |
| 4. Assess production targets | 20% |
| a. Average daily gain (ADG) | |
| b. Average daily feed intake (ADFI) | |
| c. Feed conversion (FE) | |
| d. Mortality | |
|
 | |
| 5. Describe pig marketing criteria | 10% |
| a. Desired products | |
| • Size/age | |
| • Soundness/health | |
| b. Shipping pigs | |
| • Preparing the room | |
| • Equipment | |
| • CQA | |
| • Moving techniques | |
|
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| 6. Demonstrates correct procedures for moving animals. | 10% |

Pork Production Technician

Unit: B7 Grow/Finish

Level: Two

Duration: 19 hours

Theory: 14 hours

Practical: 5 hours

Overview:

This unit of instruction is designed to cover the grow/finish stage of production. Topics include: growth and development in the grow/finish area, selecting and shipping pigs, pig nutrition and pig handling. The apprentice will gain an understanding of the importance of production efficiency and how various factors can influence production.

Objectives and Content:	<u>Percent of Unit Mark (%)</u>
1. Describe the growth and development of pigs in the grow/finish stage and analyze the factors affecting pig performance.	25%
a. Nutritional requirements of growing pigs <ul style="list-style-type: none">• Protein vs. energy• Changes within stage	
b. Procedures and contingency plans for monitoring pig growth <ul style="list-style-type: none">• Phase feeding• Backfat testing	
c. Digestive system of the pig <ul style="list-style-type: none">• Components• Nutrient partitioning	
d. Anatomy and physiology of the growing pig	
e. Individual pig health/treatments	
2. Establish pig grouping techniques and priorities.	25%
a. Pig space requirements <ul style="list-style-type: none">• Pen• Water access• Feeder	
b. Special requirements of grouping <ul style="list-style-type: none">• Feeding program• Health• Genetics• Behaviour	
c. Pig flow requirements <ul style="list-style-type: none">• Days to market• Available space	

- d. Growth and development requirements
 - Pig growth (lean growth)
 - Feed and water
 - Monitor performance
 - e. Impact of barn environment on pig growth
 - Temperature
 - Air quality
- 3. Assess selection of pigs to market standards. 25%**
- a. Desired product
 - Weight
 - Degree of finish
 - b. Marketing strategies
 - c. Requirements for exporting pigs
 - Tagging
 - Vet inspections
 - Blood samples
 - Paper work
- 4. Recognize requirements at shipping. 15%**
- a. Shipping preparation
 - b. Transportation recommendations
 - Numbers
 - Length of haul
 - Bedding
 - Temperature
 - c. Pig handling
 - Equipment
 - Pig/people interactions
 - d. Pig identification procedures
 - Tagging and traceability
 - Tattoos
 - e. Biosecurity protocol
- 5. Demonstrates the correct procedures for moving animals. 10%**

Pork Production Technician

Unit: C2 Barn Systems and Maintenance

Level: Two

Duration: 30 hours

Theory: 20 hours

Practical: 10 hours

Overview:

This unit of instruction is designed to provide the pork production technician with the knowledge of basic maintenance required in a pork production unit including the water, feed ventilation and manure handling systems. This unit will help the apprentice to understand the basic functioning of the major operating systems in a production unit and the importance of regular maintenance for all barn equipment and systems.

Objectives and Content:	<u>Percent of Unit Mark (%)</u>
1. Identify air temperature and quality requirements.	35%
a. Requirements for optimal performance	
• Temperature	
• Humidity	
• Air quality	
b. Air flow	
• Minimum ventilation	
• Fan speed	
c. Heating/cooling and ventilation systems and controls	
• Components	
• Controls	
2. Observe feed and water handling systems	20%
a. System components	
• Components	
• Controls	
• Basic function	
3. Check the manure handling system	10%
a. System components	
• Components	
• Controls	
b. Priming the pits	
• Importance	
c. Pit capacity	
d. Pit draining procedure	
• Order to pull plugs	
• Safety procedures	

- 4. **Analyze the need for barn inspections** **25%**
 - a. Components of a thorough inspection
 - b. What to look for
 - c. Timing (when this should be done)
 - d. Follow-up plan
 - e. Maintenance schedule
 - f. Records

- 5. **Demonstrates correct operation of ventilation, feeding, manure handling systems and inspections.** **10%**

Pork Production Technician

Unit: A2 Orientation II: The Job of Journeywork

Level: Two

Duration: 7 hours

Theory: 7 hours

Practical: 0 Hours

Overview:

Pork Production Technician Technical Training offers an entry-level orientation to the challenges of apprenticeship learning. The present unit introduces senior apprentices to the responsibilities of workplace *teaching* that they will assume as supervising journeypersons. Tradeworkers have a particularly rich tradition of refreshing and sharing their skills from one generation of practitioners to the next. This unit orients senior apprentices to some of the practical and conceptual tools that can enable them to contribute to this trade heritage when they themselves become certified journeypersons. The journeyperson's obligation to assist trade learners to develop skills and knowledge is complex and challenging. It involves safety considerations, employer expectations, provincial regulations, as well as the tradition of skills stewardship that links modern practice with the long history of workplace teaching and learning that defines the apprenticeable trades. The ability to offer timely, appropriate support to apprentices is itself an important area of trade learning. This unit presents material intended to help refine this ability through reflection and discussion by senior apprentices, and dialogue with their instructor. The detailed descriptors under each unit objective reflect Manitoba and Canadian standards prescribed for journey-level supervisory capabilities, as well as key topics in current research on the importance of workplace teaching and learning in trades-apprenticeship systems. Thus, descriptors represent suggested focal points or guidelines for potentially-worthwhile exploration. Delivery of this content will vary with the discretion of individual instructors, and with the experiences senior apprentices bring forward for group/individual reflection on the skills-stewardship dimension of their own future practice as journeypersons.

Objectives and Content:	<u>Percent of Unit Mark (%)</u>
1. Describe the scope, substance, and significance of journey-level status.	20%
a. Historical background, including trainee experiences <ul style="list-style-type: none">• Origin, definition, and examples of journey-level status• Obligations to employers, trade clients, and apprentices• Concept of skills stewardship, and its rationale• Customary responsibilities of journeyperson as workplace trainer/supervisor• Overview development of formal systems for regulating/recognizing journey-level competence in designated apprenticeable trades• Contributions of 'unticketed journeymen' and other informally-qualified Ironworkers to workplace trade-learning• Achievements/limitations of informal systems for workplace training• Trends (e.g. succession planning in the trades; recognition of credentials and prior learning; defined standards for on-the-job trades education and training)	

- b. Regulatory/legal dimensions of journey-level status in designated trades
 - Manitoba provincial requirements [e.g. *Apprenticeship and Trades Qualifications Act; General Regulation; the Pork Production Technician Trade Regulation*; relevant policies of the Apprenticeship and Trades Qualifications Board of Manitoba]
 - Trade-specific requirements re: Practical Training supervision and documentation; importance of quality assurance and broad-scope coverage of prescribed task-content; ratios, etc.
- c. Other (as may be specified by instructor)

2. Compare/contrast role-options and responsibilities of the supervising journeyperson.

20%

- a. Recognizing the variability of supervision assignments, situations, and roles
- b. Source and specification of the supervision assignment
- c. Formal vs. informal roles (e.g. mandated by an employer's succession plan)
- d. Implicit vs. explicit standards and content: training goals are/are not codified; assessment measures are/are not used,
- e. Accountability for results: subject/not subject to third-party notification; completion of supervision assignment itself is/is not assessed by third party; journeyperson is/is not required to prepare performance evaluation that could affect apprentice's employability or wage-rate, etc.
- f. General vs. task- or job-specific supervision assignments: e.g. scope of expectations re: content of supervisory task(s)
- g. Long-term vs. short-run supervision assignments – e.g., considerable latitude/little latitude for apprentice to learn from mistakes
- h. Formally vs. informally structured – e.g. supervision assignment is part of a prescribed cycle of assignments involving coordination among multiple journeypersons; apprentice is trained according to an individual Training Plan negotiated with employer
- i. Typology of common supervisory role-options and what is implied by each:
 - Coach role: is often initiated by someone other than apprentice, and limited to a particular skill set, task, or production requirement
 - Mentor role : often initiated by apprentice, and relatively open-ended regarding content, duration, etc.
 - Peer role: typically involves individual upgrading or cross-training of one journeyperson by another; can include senior apprentice assisting less-experienced trade learner
 - Managerial role(s): can shade over into hire/fire issues as lead-hand or site-boss
 - Coordinator role: often a senior-level journeyperson appointed by an organization to assume responsibilities for monitoring progression of groups of apprentices
 - Other roles: may be improvised by journeyperson
- j. Possibilities, perils, and likelihood of role-overlap in 'real-life' trade practice
- k. Importance of clarifying all roles, expectations, and implications involved in accepting a supervision assignment
- l. Role of Apprenticeship Training Coordinator (ATC), Manitoba Apprenticeship Branch
- m. Resources for developing skills and knowledge re: providing journey-level supervision
 - Books and journals (not always trade-specific)
 - Websites
 - Conversation with trade instructors, journeypersons, and peers
 - Workshops
- n. Other (as may be specified by instructor)

- 3. Describe/demonstrate common requirements re: providing journey-level supervision. 20%**
- a. Review Unit A1 content re: challenges/opportunities of Apprenticeship learning adapted to journey-level supervision assignments and a journey-level standpoint
 - Application of adult education concepts to trades teaching/learning (e.g. responsibilities and expectations of adult learners)
 - Practical significance of 'styles' of adult learning and teaching
 - Helping apprentices to integrate Technical Training (in school) and Practical Training (on-the-job) learning experiences
 - Providing help and guidance re: new tasks and skills
 - Providing help and guidance re: fixing mistakes
 - Learning/teaching "the ropes" – socialization of learner within a community of trade practice (e.g. how to borrow a tool, interrupt a journeyperson, 'recruit' an advisor)
 - Coverage/documentation of prescribed tasks and subtasks (Landscape Horticulturist NOA), including responsibility re: logbook sign-off (where applicable)
 - Consultation with Apprenticeship Training Coordinator (ATC), Manitoba Apprenticeship Branch
 - Communicating with apprentices and employers about supervision assignments and assignment specifications, including the limits of the trainers' own responsibilities and competence (e.g. substance-abuse intervention)
 - Benefits of maintaining a personal record of achievements, ideas, and needs as a workplace trainer
 - b. Individual reflection and guided group discussion re: personal experiences of workplace learning as an apprentice
 - Identification of best and worst practices of supervising journeypersons
 - Assessment of personal experiences (if any) to date in supervising, coaching, or guiding other people to learn or improve their skills (e.g. entry-level apprentices, members of athletic team, younger family members, etc.), and how this might compare/contrast with the journey-level support of apprenticeship learning
 - Identification of workplace and other factors that can contribute to good and bad trades teaching/learning experiences
 - Development of personal standards re: responsibility to share one's knowledge and skill with others in the workplace (e.g., use/misuse of humour, rigour, discretion, craft-pride, etc.)
 - c. Comparison/contrast of discussion results with current knowledge/resources re: workplace skills coaching methods as applicable to journey-level supervision assignments
 - Qualities of a good workplace coach
 - Components of workplace skills coaching
 - Processes and recommended practices re: workplace coaching
 - Troubleshooting problems re: supervision assignments
 - d. Other (as may be specified by instructor)
- 4. Complete Modules 1 to 3, *Workplace Coaching Skills* (or equivalent). 20%**
- a. Identifying purpose of the lesson
 - Explaining the point of the lesson
 - Role of the coach in specific coaching situation
 - Other (specified by instructor)
 - b. Linking the lesson
 - Learner needs
 - Lesson sequence
 - Focus on learner
 - Selection/timing of coaching opportunities
 - c. Demonstration of skill/task to be learned
 - Starting the coaching session

- Demonstration
- Hands-on trial
- Recap for learner

5. Complete Modules 4 to 6, *Workplace Coaching Skills* (or equivalent).

20%

- a. Practice of skill/task to be learned
 - Nature and importance of practice
 - Setting up for learner practice
 - Types of practice
 - Recycling and reinforcing skill/task learning
- b. Providing feedback to the learner
 - Value of feedback
 - Kinds of feedback
 - Guidelines and tips
- c. Assessment
 - Value of assessing learner progress
 - Assessing level of skill
 - Planning further steps toward skill/task mastery

Pork Production Technician

Unit: A8 Pre-Provincial Exam Review

Level: Two

Duration: 30 hours

Theory: 28 hours

Practical: 0 hours

Overview:

This unit offers senior apprentices a systematic review of skills and knowledge required to pass the Provincial Examination. It promotes a purposeful personal synthesis between on-the-job learning and the content of in-school technical training. The unit includes information about the significance of Provincial certification and the features of the Provincial Examination. No testing is prescribed for the theory section of this instruction unit. Instead, a “pass/fail” grade will be awarded upon completion of the unit.

Objectives and Content:

- 1. Describe the significance, format and general content of Provincial Examinations for the trade of Pork Production Technician.**
 - a. Scope and aims of Provincial certification; value of certifications
 - b. Obligations of candidates for Provincial certification
 - Relevance of Provincial Examinations to current, accepted trade practices; industry-based provincial validation of test items
 - Supplemental policy (retesting)
 - Confidentiality of examination content
 - c. Multiple-choice format (four-option) item format, Apprenticeship Manitoba standards for acceptable test items
 - d. Government materials relevant to the Provincial Examinations for apprentice Pork Production Technicians.
 - Provincial Occupational Analysis (POA); prescribed scope of the skills and knowledge with comprise the trade
 - POA “pie-chart” and its relationship to content distribution of Provincial Examination items
 - Apprenticeship Manitoba Technical Training package

- 2. Identify resources, strategies and other considerations for maximizing successful completion of written examinations.**
 - a. Personal preparedness
 - Rest
 - Nutrition
 - Personal study regimen
 - Prior experience in test situations (e.g., unit tests)

- b. Self-assessment, consultation and personal study plan
 - Self-assessment of individual strengths/weaknesses in trade related skills and knowledge
 - Approved textbooks
 - Study groups
- 3. **Review program content regarding occupational skills.**
- 4. **Review program content regarding stockmanship.**
- 5. **Review program content regarding facilities.**
