

Research Project Manager in Agri-bio

National Occupational Standard Summary



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Definition of occupation | **Research Project Manager in Agri-bio**

The Research Project Manager in Agri-bio supports research teams by facilitating all administrative aspects of research projects. This involves the development and communication of timelines and budgets, tracking timelines and budgets against performance measures, securing the application for research ethics, liaising with external contractors on technical matters, communicating and reporting project performance results to the director, overseeing contractor performance to milestones and contract objectives, connecting the teams with the right human resources for the project, and ensuring compliance with standard operating procedures (SOPs) and regulatory and legal requirements. Although not necessarily involved in the day-to-day research activities, this position is generally held by a senior research scientist managing multiple research projects.

The Research Project Manager develops and maintains a full overview of the project, including technical, financial, and business aspects, and therefore interfaces with many parts of the organization. The individual in this role assists in the preparation and management of strategic and operating plans, budgets, and forecasts, as well as general departmental logistics and administration.

Another key responsibility for this position is to identify problems in programs using tools like critical path analysis, working with key staff to identify remedies. Depending on the size of the organization, the Research Project Manager may be responsible for the management of the research team involved in the research and field trials.

Level of education, training or designations requirements

| | | | | | |
|------------------------------------|-----------------|------------------|-----------------|---------------|----------|
| Typical Education Required | Secondary | College | Bachelor | Master | PhD |
| Typical Starting Experience | 0-5 yrs. | 5-10 yrs. | 10-15 yrs. | 15-20 yrs. | 20+ yrs. |

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- Minimum bachelor’s degree in agriculture, biology, or a related field is recommended
- Certificate in project management or equivalent experience is an asset
- Three to five years of experience in a relevant field is recommended
- Experience in managing others is recommended
- Leadership experience is an asset

This role works in the following subsectors:

| | | | | |
|----------------------|------------|-----------------|----------------|------------|
| Applicable To | Bio-Health | Agri-Bio | Bio-Industrial | Bio-Energy |
|----------------------|------------|-----------------|----------------|------------|

The level of complexity of the role is:

| | | | | |
|----------------------------------|--------------|-------------|-----------------------------------|------------------|
| Span of Complexity Levels | Foundational | Operational | Specialist/ Management | Expert/Executive |
|----------------------------------|--------------|-------------|-----------------------------------|------------------|

RESEARCH PROJECT MANAGER IN AGRI-BIOTECH COMPETENCY SUMMARY

| Competencies | Complexity Level Required | | | |
|--|---------------------------|------------------|-----------------------------|---------------------------|
| | 1 Foundational | 2 Operational | 3 Specialist/ Manager | 4 Expert/ Executive |
| Core | | | | |
| Research Ethics | | | | |
| Technical | | | | |
| Budget Management | | | | |
| Developing &/or Overseeing an R&D Program | | | | |
| Designing an R&D Project | | | | |
| Planning & Implementing R&D Projects | | | | |
| Commercialization of Research Results | | | | |
| Recruiting & Managing the R&D Team | | | | |
| Applying Model Experimental Practices | | | | |
| Managing Quality in R&D | | | | |
| Digital Skills for R&D | | | | |
| Liaising with Key Stakeholders and Influencers | | | | |
| Industry Regulatory | | | | |
| Legal/Regulatory Compliance in R&D | | | | |
| Occupational Health & Safety in R&D | | | | |

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| Competencies | Complexity Level Required | | | |
|---|---------------------------|------------------|-----------------------------|---------------------------|
| | 1 Foundational | 2 Operational | 3 Specialist/ Manager | 4 Expert/ Executive |
| Personal and Professional | | | | |
| Collaboration | | | | |
| Continuous Learning | | | | |
| Creative Leadership | | | | |
| Critical Thinking/Decision-Making in R&D | | | | |
| Effective Interpersonal Communication | | | | |
| Professionalism/Emotional & Cultural Intelligence | | | | |

Core competencies

Research Ethics

Exercises integrity and professionalism in order to ensure all research and development (R&D) is performed in a responsible manner in keeping with the ethical principles of beneficence and nonmaleficence.

Technical competencies

Budget Management

Establishes, tracks, and manages budgets for the team/project, laboratory/department, and/or organization in order to ensure sound fiscal responsibility with designated funds.

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Developing &/or Overseeing an R&D Program

Defines the focus and strategy of the laboratory/organization's R&D program, determines which projects will be included in the program, generates funding to support the program, and oversees the program from inception to commercial development, if applicable.

Designing an R&D Project

Defines the parameters and specifications of a research/development project, including the project scope, objectives, goals, resource requirements, project timeline, and budget. Also designs the experiments, identifies the testing and validation methodologies that can be employed to create a manageable research/development project, and, if applicable, takes the application, translation, and scale-up of research discoveries/results into consideration during the design phase.

Planning & Implementing R&D Projects

Prepares a deliverable-oriented work breakdown structure that details milestones, resources, schedules, and budget for the planned project outcomes. Also develops a risk management plan, manages activities, provides project updates, and oversees project closeout in order to ensure project outcomes are delivered on time and in budget.

Commercialization of Research Results:

Works within an interdisciplinary team to assist with, manage, and oversee the research adaptation and scale-up process from inception to sustainable and profitable high-volume production in order to ensure the science developed in the lab can be translated into practical, commercially viable products/processes.

Recruiting & Managing the R&D Team:

Recruits and manages a qualified workforce in order to ensure the organization's R&D program and projects are properly staffed and that the team is managed in a way that fosters not only compliance to requirements and protocols, but also high performance, strong morale, and a high retention rate.

Applying Model Experimental Practices

Applies knowledge, skills, and model experimental practices related to the scientific and technical components of laboratory and field testing; the use, collection and storage of samples and reagents; the proper handling and disposal of waste products generated during research activities; and the use, maintenance, and calibration of instruments and equipment in order to produce optimal research results in a safe, effective, and efficient manner.

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Managing Quality in R&D

Implements and monitors the standard quality management processes to ensure that all R&D activities are conducted according to required standards and create reproducible results in the tests performed, the data generated, the results reported, and the products and technologies created.

Digital Skills for R&D

Makes effective use of the Internet and computer software in order to identify existing scientific activity relevant to the area of study, investigate the depth and breadth of that research, record and maintain data, and develop and disseminate reports and presentations, etc.

Liaising with Key Stakeholders and Influencers

Liaises with investors, government, regulatory authorities, and other influential organizations in order to build positive relationships and support for the laboratory/organization's R&D program.

Industry regulatory competencies

Legal/Regulatory Compliance in R&D

Manages R&D documents, data, tools, resources, waste products, processes, and procedures in accordance with relevant safety, security, environmental, and ethical protocols—including intellectual property protection—in order to ensure legal protection and compliance with regulatory and funding requirements.

Occupational Health & Safety in R&D

Actively participates in/manages the health and safety program for R&D staff and their workplace in order to ensure the health and safety of staff. Also ensures the organization's compliance with legislation and regulations related to safe work practices and procedures, corporate procedures, and facility health, safety, and environmental rules.

Personal and professional competencies

Collaboration

Works effectively with others in order to foster trust and cooperation in the achievement of R&D goals and project objectives.

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Continuous Learning

Continuously undertakes introspection in order to understand current knowledge and skills in a changing environment, recognizes personal knowledge gaps, undertakes independent action to actively seek targeted opportunities to acquire new knowledge, and reflects on how new knowledge can be integrated and applied.

Creative Leadership

Creates clarity of purpose for colleagues, teams, staff, and the organization, inspires them to transform an idea or vision into reality, cultivates innovative solutions even in the face of complex and challenging circumstances, and effectively manages change.

Critical Thinking/Decision-Making in R&D

Analyzes, synthesizes, and evaluates arguments, information, and data and exercises sound judgement in order to solve problems and make decisions that strategically benefit the laboratory/organization's R&D activities and strategy.

Effective Interpersonal Communication

Communicates in ways that create shared understanding, generate support for the achievement of goals and objectives, and facilitate conflict resolution and problem-solving.

Professionalism/Emotional & Cultural Intelligence

Applies emotional and professional sensitivity to become aware of own emotions and those of others they interact with in such a way that they can manage personal and professional decorum and maintain productive relationships.

USE NATIONAL OCCUPATIONAL STANDARDS TO:

- ✓ Build a job description
- ✓ Plan professional development
- ✓ Map career progression and succession planning
- ✓ Benchmark compensation

View the full National Occupational Standards at biotalent.ca/NOS

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