

Agrologist – Opted Out and Excluded

APS Benchmark Listings

Sub. No.	Bench- mark No.	Dept.	Working Title Job Title	Know-How				Creativity/ Problem Solving		Responsibility		Total Points
				Prof./ Cont.	Comp. Div.	H.R. Skills	Points	%	Points	Profile	Points	
Agrologist 3 (Point Range 439 - 518)												
OO/E	523AG01	Environment & Parks	Prov. Rangeland Specialist - Grasslands	F	I	2	264	43	115	B	115	494
OO/E	523AG06	Agriculture & Forestry	Provincial Apiculturist	F	I	2	264	43	115	B	115	494
OO/E	523AG05	Agriculture & Forestry	Provincial Livestock Welfare Specialist	F	I	2	264	38	100	B	100	464
Agrologist 2 (Point Range 371 - 438)												
OO/E	522AG07	Agriculture & Forestry	Livestock Statistician	E+	I	2	230	38	87	B	87	404
OO/E	522AG08	Agriculture & Forestry	Crop Specialist	E+	I	2	230	38	87	B	87	404
OO/E	522AG10	Agriculture & Forestry	Research Agrologist	E+	I	2	230	38	87	B	87	404
OO/E	522AG09	Agriculture & Forestry	Nutrient Management Specialist	E+	I	2	230	33	76	B	76	382
OO/E	522AG11	Environment & Parks	Rangeland Agrologist	E+	I	2	230	33	76	B	76	382
Agrologist 1 (Point Range 269 - 370)												

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OO/E	521AG04	Agriculture & Forestry	Surface Water Quality Specialist	E-	I	2	175	29	50	B	50	275
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Last Review / Update: 2016-03-11

Opted out and Excluded Benchmark Evaluation - 523AG01

Identification Section

Working Title:	Provincial Rangeland Specialist - Grasslands
Department:	Environment and Parks
Division, Branch/Unit:	Lands Division, Rangeland Management Branch/ Range Resource Management Program
Reports To:	Head Range Resource Management Program, Senior Manager
Levels to D.M.:	4
Job Description:	523AG01
MRS:	See the Minimum Recruitment Standard for Agrologist
Job Code:	523AG - Agrologist Level 3

[Organization Chart](#)

(requires login)

Comments on Role

As the provincial specialist in grassland ecosystems, the Provincial Rangeland Specialist – Grasslands (PRS) provides leadership and knowledge transfer to promote the development and application of sustainable range management principles and practices through a program of research, monitoring, tool building, policy development, education, collaborative partnerships and awareness. Reporting directly to the Head, Range Resource Management with additional functional direction from the Area Manager of Rangelands – Prairie, this position provides a key advisory role in the application of new scientific

Evaluation

Knowledge

FI2 264



Creativity/Problem Solving

43% 115



Responsibility

B 115



TOTAL JOB POINTS

494

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knowledge to the development of sustainable range management practices as well as the development of innovative strategies that will conserve rangeland resources and support the integrated use of public lands in the prairie and parkland regions. One of three major landscape ecosystems in Alberta (grasslands, boreal and montane foothills), the grassland ecosystem is primarily comprised of the Grassland Natural Region and Central Parkland Natural Regions. These two natural regions contain about 11 million acres of intact native rangeland.

Comments on Evaluation

- **Knowledge:**
Content:
- **F:** Requires an in-depth expertise of range resource management topics: rangeland ecology, plant and soil taxonomy, biometrics, statistics, vegetation community analysis, range inventory procedures, computer mapping, plant physiology, livestock production and nutrition, wildlife relationships and interactions, rangeland reclamation principles and practices, use of native plant species and thorough knowledge of pertinent acts, regulations, policies and directives. Position is the provincial specialist in grassland landscape ecosystems and is responsible for developing applied research initiatives in the area of range science related to grass ecosystems. The minimum education requirement for the position is a Masters Degree in range management. As one of three unique provincial specialists (grasslands, boreal and montane foothills) this position is considered a senior/leadership position in research and extension activities. Position requires a wider breadth of knowledge than a position at the E+ level, in recognition of wider breadth of knowledge in range management, technical expertise and creditability in national/international and federal/provincial agreement of research initiatives. Expert knowledge in multiple areas is applied to research and delivery of several programs, supporting an F level of Content Knowledge.

Complexity and Diversity:

- **I:** Responsibilities affect a large group of external and internal stakeholders. Position uses extensive expert knowledge in varied resource management disciplines, in addition to skills in research and development, and skills in leading the development of standards, guidelines and procedures to measure and monitor the health of the grassland landscape ecosystem. Position is complex and diverse (I) but not rated as a I+ as it does not manage operations

Human Relations Skills:

- **2:** The position provides project leadership for specific initiatives, encouraging varied partners to work collaboratively within shared financial resources to develop strategies to address emerging issues. Position also spans the gap between scientific writing styles to crafting awareness literature for non-technical users. The requirement to influence and persuade others is a key position requirement. Position also directly supervises a unit of three Area Range Management Specialists, classified at the Agrologist 2 level.

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- **Creativity/Problem Solving:**

43%: This position requires a strategic focus which supports a 43% Creativity score. The position develops range research initiatives and provides grazing strategies, guidelines and technology to protect grassland ecosystems. These strategies are both provincial and federal in scope. The work performed is extremely independent in nature and aims at addressing emerging range resource issues while leading and developing new research initiatives. As a result, the problems are less known and need to be identified by the position because they arise as a result of changes within the industry. A major component of the 43% profile is the developing of programs, policies and research initiatives which is congruent with this position's responsibilities. The position is considered higher than a 38% score because the problems are not all known and the position also requires a strategic component. The Provincial Rangeland Specialist requires evaluative and interpretative thinking, not reflected in the definition of a 38% score for Creativity.

- **Responsibility:**

B: Position is balanced, responding to special requests of other agencies and NGO's in developing specialized management plans on the delivery side and also producing range management communication tools and leading the development of range management tools. On the research side position develops leading edge range management research initiatives that are provincial in scope. As a result, the most accurate profile that describes the position is a Balanced profile that encompasses both the analytical (research) and process (service delivery) aspects.

Last Reviewed: November, 2009



Last Review / Update: 2016-03-11

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Opted Out and Excluded Benchmark Job Description - 523AG01

Identification Section

Working Title:	Provincial Rangeland Specialist - Grasslands
Department:	Environment and Parks
Division, Branch/Unit:	Lands Division, Rangeland Management Branch/Range Resource Management Program
Reports To:	Head Range Resource Management Program, Senior Manager
Levels to D.M.:	4

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

As the provincial specialist in grassland ecosystems, the Provincial Rangeland Specialist - Grasslands (PRS) provides leadership and knowledge transfer to promote the development and application of sustainable range management principles and practices through a program of research, monitoring, tool building, policy development, education, collaborative partnerships and awareness. Reporting directly to the Head, Range Resource Management with additional functional direction from the Area Manager of Rangelands - Prairie, this position provides a key advisory role in the application of new scientific knowledge to the development of sustainable range management practices as well as the development of innovative strategies that will conserve rangeland resources and support the integrated use of public lands in the prairie and parkland regions. One of three major landscape ecosystems in Alberta (grasslands, boreal and montane foothills), the grassland ecosystem is primarily comprised of the Grassland Natural Region and the Central Parkland Natural Regions. These two natural regions contain about 11 million acres of intact native rangeland. These subregions are among the most modified by human habitation and land-use practices across Alberta. Within the overall rangeland management program, the Provincial Rangeland Specialist - Grasslands is responsible for the development of ecologically sound range

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management practices for the grasslands ecosystem that foster an increase in sustainable management of the remaining native landscapes.

With considerable scope for independent action, the Provincial Rangeland Specialist - Grasslands plays a key leadership role in developing new research and extension initiatives to address emerging range resource issues that may pose risks or have a negative impact on the grassland ecosystem. The PRS supervises and coordinates the activities of associated Area Range Management Specialists in the Grassland Natural Region and the Central Parkland Natural Regions. Working as a team, they provide services to the Rangeland Management Branch, to SRD, and a wide spectrum of groups, users and organizations across the province.

Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

- 1. Develop applied research initiatives in the area of range science related to the grasslands ecosystem that will support the Lands Division business plan priorities and strategic department initiatives as well as ensure that Alberta is on the leading edge of sustainable range management practices.**

Activities:

Identify knowledge gaps and develop research and demonstration projects that address rangeland resource issues on public lands in support of divisional goals at the local, regional and provincial level.

Coordinate implementation of projects including staffing, logistics, partnerships and budgets.

Direct or conduct appropriate analysis of data and reporting.

Initiate special research projects to address high priority needs through partners and community based strategies (e.g. Initiate Foothills Restoration Forum and Rumsey Reclamation and Restoration Success - provides key metrics for modeling cumulative effects in support of SREM, LUF and Biodiversity Strategy).

Cooperate with Agriculture and Agri-Food Canada, Research Branch to identify rangeland research needs and to develop cooperative research initiatives (e.g. Onefour Winter Grazing Study - supports the Provincial Biodiversity Strategy and Species-at-Risk recovery planning).

Leverage research projects and resources to address priority issues by serving as an Adjunct Professor at the University of Calgary, Faculty of Environmental Design (e.g. U of C Project – Restoration of Silver Sagebrush Communities).

2. **Lead the development of standards, guidelines and procedures to measure and monitor the health of the grassland landscape ecosystem as well as to provide a credible and transparent rationale for assessing compliance with resource management standards at the regional level.**

Activities:

Lead a team of Range Management Specialists in the development of standards and guidelines used for range and riparian health assessment.

Collaborate with the Provincial Rangeland Ecologist to ensure a consistent application of provincial methods and protocols and the development of standardized information products like plant community guides. The PRE plays a pivotal role to ensure consistent concepts and methods are applied to overall provincial work carried out by the three rangeland ecosystem specialists.

Provide a lead role in the development and ongoing refinement of the Rangeland Health Assessment protocol.

Develop ecological site descriptions for riparian and terrestrial ecosystems, the principal standard used in assessing rangeland health.

Collaborate with other sectors in adapting range health tools to their unique needs (e.g. Application of range health standards to species at risk recovery plans (Sage-Grouse Recovery Plan) or to integration of wildlife management needs with range management practices (e.g. MULTISAR) and in the new reclamation criteria for the oil and gas industry (RCAG).

Maintain the Prairie and Parkland Rangeland Reference Area Network, a long-term range resource monitoring network that provides baseline soils and vegetation information for resource managers in LANDS DIVISION, other agencies, the scientific community and the public (65 reference area sites maintained).

Maintain and expand the data bases associated with the plant community classification in the GNR and CPNR.

Develop and continuously refine models to correlate rangeland soils and soil landscapes with native plant communities (e.g. Grassland Vegetation Inventory (GVI)).

3. **Provide an expert advisory role and input to strategic departmental initiatives and projects where a specialized rangeland science focus involving the grassland landscape ecosystem (prairie and parkland) is required.**

Activities:

Develop methods and specifications for provincial inventory initiatives like the Grassland Vegetation Inventory (GVI) which supports the LUF, SREM, ILM, Biodiversity Strategy and Water for Life.

Support strategic planning initiatives like the Southern Alberta Sustainability Strategy (SASS) by preparing rangeland resource analysis and input.

Develop adaptive range management practices in support of Species at Risk – Species Recovery Process by defining beneficial management practices (e.g. Beneficial Grazing Management Practices for Sage-Grouse and MULTISAR).

- 4. Lead development of range management tools, inventories and strategies based on leading edge scientific knowledge that will assist range resource managers to sustainably integrate and manage rangeland resources as required by the Lands Division business plan.**

Activities:

Prepare range resource inventories (maps, databases and reports) for grazing dispositions with special management needs through Lands Division staff and contract resources and also through the cooperative services of Resource Data Division (AENV).

Participate on division and external team as expert resource.

Represent Lands Division in the Grassland Vegetation Inventory project team.

Participate on team and task groups to develop management tools and programs provincial in scope.

Develop extension tools through partnerships like the Cows and Fish program to describe the functions and management of riparian systems.

Produce publications, bulletins, and technical notes, videos and web-based tools that provide managers with access to range management information, guidelines and recommendations.

- 5. Participate in policy development with regards to current and emerging rangeland issues associated with Prairie and Parkland rangelands and provide timely and scientific based input in response to emerging issues.**

Activities:

Provide scientific based input to management and staff on a variety of policy issues and needs (e.g. Rangeland Carbon and Climate Change, Ecological Goods and Services).

Prepare draft policies at the request of senior management to address specific range resource issues and needs (e.g. Tenure for Stewardship, Winter Feeding on Public Rangelands).

Maintain a scan of emerging issues that may result in negative long term impacts and increased risk to prairie and parkland rangelands (e.g. Manure or compost disposal, industrial waste disposal).

Opportunities for new initiatives that support SRD.

Provide timely support to Ministerial Requests, Action Requests and Briefing Notes.

6. Promote increased awareness and understanding across Alberta about the grassland landscape ecosystem and its management, and provide educational opportunities for range users in order to promote improved range resource stewardship.

Activities:

Provide leadership in the development of education and awareness initiatives that will support transfer of new scientific knowledge and deal with emerging resource issues and concerns.

Serve as SRD representative on the Board of Directors of the Cows and Fish Society to promote education and awareness about riparian areas and their protection and management.

Develop opportunities to build capacity for education and outreach in sustainable, ecologically based rangeland management through mechanisms like the Stockmen's Range Management Course series, an applied field course for livestock producers, resource managers, environmental groups, which fosters improved stewardship of rangelands.

Participate and support range management related public education outreach programs and initiatives in the educational and conservation arenas.

Collaborate with key GoA managers and industry to foster an increase in landscape based approaches.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

Impact is on the province's grasslands ecosystem which is primarily comprised of two natural regions containing about 11 million acres of native rangeland which are among the most modified by human land-use practices. Within the overall rangeland management program, this Provincial Rangeland Specialist is responsible for the development of ecologically sound range management practices for the grasslands ecosystem. These management practices which are based on

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leading edge research are the foundation to the effective sustainable management of the grasslands landscape as well as providing for integrated use of these public lands.

Provincial specialist in grassland landscape ecosystems and has province wide scope for promoting development and application of sustainable resource management through a program of research, monitoring, tool building, policy development, education and awareness – is the provincial expert in this area.

Provides leadership in the development and application of new scientific knowledge to emerging range resource issues and to the development of guidelines and standards to measure range health as well as provides project leadership for specific initiatives. Must influence and persuade others as this job has no direct authority for program delivery. The position acts as an expert resource to field staff and develops the standards and protocols that they are expected to follow in program delivery.

An ongoing challenge for this provincial specialist is to identify knowledge gaps based on an assessment of current issues emerging from the public lands domain, vetting them against current thinking in natural resource science and then formulating research activities to address these issues. The results of this leading edge research are then applied to the design and promotion of range resource management strategies that address resource needs and issues in the grassland ecosystem that will be acceptable to a broad range of stakeholders and will be adopted through awareness on a voluntary basis instead of through regulation and enforcement. An example: impacts from expanding industrial activities on native rangelands have raised concerns from the ranching and environmental communities. A rigorous scientific approach is being developed to credibly evaluate the long term cumulative impacts on the prairie and parkland plant communities, to evaluate reclamation success and potential threats to grassland integrity. Through collaboration with the university and the pooling of financial resources of varied partners, this specialist is ensuring that eventual research project results will be conveyed from a credible and independent institution and the resources are being leveraged that will be beyond those that ASRD could apply. This will significantly increase the likelihood that management recommendations will be accepted by the oil and gas industry, the environmental community and the public.

Creative thinking often involves collaborating with other sectors in adapting range health tools to their unique needs (e.g. Application of range health standards to species at risk recovery plans such as the Sage-Grouse Recovery Plan or the integration of wildlife management needs with range management practices (e.g. MULTISAR). This has particularly been the case since the shift of Lands - RMB from AFRD to ASRD which required an immediate focus from strictly agricultural values to a more integrative approach to rangeland resource management. The Sage-Grouse beneficial management

practices project demonstrated the relevance of range management tools like range health assessment to evaluate current range health relative to livestock grazing as well as to assess habitat quality for sage grouse.

Creative thinking also involves facilitating the transfer of scientific knowledge through the development of various tools that are specially adapted to the needs of varied clientele both internal and external to the department.

Provides leadership to encourage varied partners (department, other agencies and NGOs) to work collaboratively within shared financial resource to develop strategies that address emerging issues in the grassland landscape ecosystem. The PRS works at multiple levels, interacting with both provincial and area scale projects and teams that require support on range science and technology matters relative to business plan priorities as well as strategic initiatives.

Provides support to rangeland Agrologists and program managers.

Range management is an art and a science which requires the development of new collaborative thinking, methods and solutions to address issues sustain ecosystems and landscape health and provide benefits to Albertans.

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

Knowledge:

Strong knowledge of rangeland ecology and landscape processes and functioning

Strong knowledge of plant and soil taxonomy

Well developed knowledge of research methods and experimental design

Well developed knowledge of biometrics (biological measurements) and statistics including classical parametric statistics as well as methods associated with vegetation community analysis (ordination and classification methods)

Strong knowledge of range inventory procedures, computer mapping (geographic information systems)

Strong knowledge of plant physiology, livestock production and nutrition, wildlife relationships and interactions

Strong knowledge of rangeland reclamation principles and practices, use of native plant species

Thorough knowledge of pertinent acts, regulations, policies and directives

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Well developed knowledge of extension and information packaging

Considerable knowledge and experience with the history of the ranching industry and ranching culture in grasslands of Alberta

Understanding of key common landuses and values in grasslands including fish and wildlife, recreation, watersheds and oil and gas

Skills:

Effective writing skills

Strong negotiation and consensus building in dealing with resolution of range resource conflicts

Use of wide range of computer systems and software for report writing, publication development, graphic design (SAS, PCOrd, Decorana, Paradox, Corel Draw)

Computer mapping and geographic information systems (Arcview)

Well developed process consulting and facilitation skills

Strong organizational and communication skills applied at various levels and scales: local community level, regional and provincial scales with livestock industry and scientific peers

Well developed contract and budgeting skills

Able to maintain an environmental scan of factors and forces that may impact rangeland ecosystems and their sustainable management

Abilities:

Ability to span the gap between scientific writing style to crafting awareness literature for non-technical users of rangeland especially livestock producers

Ability to be accepted as a credible resource expert and unbiased resource manager in rural and urban settings

Ability to effectively assess project needs and match with work unit capabilities and priorities

Ability to apply scientific knowledge to the policy development sphere

Ability to obtain significant financial resources for research and extension programs through partnerships

Ability to lead creativity and innovation relative to achieving rangeland and GoA business goals and strategies

Ability to write and review scientific literature for publication

Collaborative problem solving on complex rangeland issues within a relatively short time frame and limited resources

Training/Certification:

Requires MSc in Rangeland Ecology and Management

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Must be eligible for membership in the Alberta Institute of Agrologists

Contacts

(Main contacts of this position and the purpose of those contacts.)

Maintains ongoing dialogue through network of scientists, technical specialists, leaders from ranching industry and environmental groups to be aware of issues and trends affecting rangeland resources.

Collaborate with other Provincial Rangeland Specialists (montane foothills and boreal) and members of the Range Management Program to communicate matters of common and provincial concern.

Collaborate with the Provincial Rangeland Ecologist (PRE) to ensure a consistent application of provincial methods and protocols and the development of standardized information products like plant community guides. The PRE plays a pivotal role to ensure consistent concepts and methods are applied to overall provincial work carried out by the three rangeland ecosystem specialists (grassland, montane foothills and boreal)

Represent department as subject specialist in the grassland ecosystem aspect of rangeland management.

Develop appropriate linkages and maintain an ongoing dialogue with the rangeland science community and other associated disciplines in the natural resource management sphere (e.g. conservation biology, wildlife management, reclamation) including the University of Calgary, University of Alberta and University of Lethbridge) to facilitate development of a knowledge exchange network.

Provide ongoing expert advice to senior managers in SRD, to district Agrologists in Lands Division, area program managers in ASRD and to resource managers in other agencies like Natural Resource Conservation Board, Alberta Agriculture and Rural Development, Alberta Environment, Alberta Energy and Utilities Board and Alberta Municipal Affairs.

Collaborate with a broad spectrum of industries, agencies and NGOs (e.g. Agriculture and Agri-Food Canada, Canadian Wildlife Service, Department of National Defense, Nature Conservancy of Canada, Alberta Beef Producers, Alberta Biodiversity Monitoring Program) to address and resolve emerging issues.

Maintain ongoing interaction with Alberta Conservation Association, Alberta Fish and Game Association, ASRD representative to the Cows and Fish Society to ensure coordination of private land conservation efforts with that of public

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lands. The position will communicate and align the Cows and Fish Program and deliverables with the needs of SRD in achieving a number of strategic priorities including Biodiversity Strategy, Integrated Land Management, Water for Life and Fostering Stewardship.

Maintain long-term relationship with organizations like the International Society for Range Management and contributes and invests private time in sustaining the International Mountain Section of SRM, a vital venue for exchange of research, experience and contacts concerned with the art and science of rangeland management.

Outside of the Alberta government, position interacts with the Department of National Defense (CFB Suffield and CFB Wainwright), Prairie Farm Rehabilitation Administration, Fisheries and Oceans Canada, BC Ministry of Forests, Saskatchewan Agriculture and Lands to foster cooperative intergovernmental decision making.

Outside of government, position interacts with national, provincial and regional coordinators of a variety of NGO's including the Alberta Beef Producers, Canadian Cattlemen's Association, Nature Conservancy of Canada, Southern Alberta Land Trust Society, Ducks Unlimited, First Nations, Local Municipal Governments to encourage integrated and broad based support for sustainable rangeland management.

Outside of government, position also interacts with universities to promote educational focus on sustainable rangeland ecosystems.

Canadian Association of Petroleum Producers (CAPP) relative to reclamation practices and criteria (e.g. RCAG, Foothills Restoration Forum)

International (e.g. extension of Alberta Rangeland Health Assessment Protocol to China and US users)

Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

Directly supervises three Area Range Management Specialists with a position focus on the grasslands landscape ecosystem:

2 Positions - Agrologist 2, Area Range Management Specialist, Lethbridge
 Agrologist 2, Area Range Management Specialist, Red Deer.

Provide mentorship, training and coaching to Rangeland Agrologists (10 in SE Region).

Supervise the Multisar Rangeland Agrologist – Multisar Partnership.



Last Review / Update: 2016-03-11

Opted out and Excluded Benchmark Evaluation - 523AG06

Identification Section

Working Title:	Provincial Apiculturist
Department:	Agriculture and Forestry
Division, Branch/Unit:	Agriculture Research, Pest Surveillance
Reports To:	Branch Head, Pest Surveillance, Senior Manager
Levels to D.M.:	5
Job Description:	523AG06
MRS:	See the Minimum Recruitment Standard for Agrologist
Job Code:	523AG - Agrologist Level 3

[Organization Chart](#)

(requires login)

Evaluation Knowledge

FI2 264



Creativity/Problem Solving

43% 115



Responsibility

B 115



TOTAL JOB POINTS

494

Comments on Role

The Provincial Apiculturist (PA) is responsible for the Apiculture program in Alberta. The primary function is providing leadership and expertise to the beekeeping industry and related stakeholders. The PA is responsible for the implementation of the *Bee Act* and its regulation across the province. The PA's unique focus is defining, capturing and delivering new and emerging technology for growth and improvement of apiculture throughout Alberta. The PA works with the clients to define research needs and initiates research projects to test and develop technologies to meet their needs and assist the beekeeping industry to be competitive and sustainable. The PA brings leadership that promotes networking

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between the beekeeping industry, ARD divisions, other commodity organizations and municipal, provincial, federal government partners. The PA provides counselling, advice, training, extension and educational programs that result in enhancing the beekeeping industry growth. The PA represents the department in a technical capacity on various industry, research organizations and committees at provincial, national and international levels.

Comments on Evaluation

Knowledge:

Content:

F: This position is looked upon to provide leadership and expertise to the beekeeping industry and its stakeholders. This includes representing the department as a technical specialist on committees at the provincial, national and international level as well as providing expert advice to various stakeholders (industry, research organizations, educational institutions, etc.) in the area of apiculture. This position is also responsible for defining, capturing and delivering new and emerging technology for growth and improvement of apiculture throughout Alberta; this includes defining research needs and initiating research projects to test and develop technologies as a means of assisting the beekeeping industry in remaining competitive and sustainable. This position is viewed as a provincial specialist involved in a number of initiatives that impact numerous stakeholders. This position requires specialized knowledge in apiculture as well as knowledge of the agriculture industry as a whole combined with knowledge of research design, policy, legislation, and administration of regulations. A position at the E+ level would not exhibit both the depth and breadth of knowledge as seen in this position; as such the content knowledge is score at an F.

Complexity and Diversity:

I: The work completed affects a large group of stakeholders provincially and nationally. As bees are transported across the Alberta/BC border for wintering, there are implications in terms of spread of disease, which can affect the entire country and the bee population. This position is diverse in responsibilities associated with apiculture.

Human Relations Skills:

2: This position has significant interaction with industry officials and clients, which extends beyond the technical exchange of information. There is a strong leadership role as the provincial specialist for this industry.

Creativity/Problem Solving:

43%: The job is provincial in scope. Problems are not always known, and the position must look at issues within the industry from a strategic perspective. Position defines, captures and delivers new and emerging technology to be used by

stakeholders throughout the province. These new and emerging technologies create a foundation that will be updated and expanded upon in future research. Emphasis of this position is on know-how and many of the recommendations made are knowledge based.

Responsibility:

B: The position focuses both on program delivery and research. The delivery side involves the administration of the *Bee Act*, and on the research side, position is involved in research into integrated pest management issues, and works with ARD and other agencies to develop cooperative projects to serve the beekeeping industry.

Last Reviewed: November, 2009



Last Review / Update: 2016-03-11

Opted Out and Excluded Benchmark Job Description - 523AG06

Identification Section

Working Title:	Provincial Apiculturist
Department:	Agriculture and Forestry
Division, Branch/Unit:	Agriculture Research, Pest Surveillance
Reports To:	Branch Head, Pest Surveillance, Senior Manager
Levels to D.M.:	5

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

The Provincial Apiculturist (PA) is responsible for the Apiculture program in Alberta. The primary function is providing leadership and expertise to the beekeeping industry and related stakeholders. The PA is responsible for the implementation of the *Bee Act* and its regulation across the province. The PA's unique focus is defining, capturing and delivering new and emerging technology for growth and improving apiculture throughout Alberta. The PA works with the clients to define research needs and initiates research projects to test and develop technologies to meet their needs and assist the beekeeping industry to be competitive and sustainable. The PA brings leadership that promotes networking between the beekeeping industry, ARD divisions, other commodity organizations and municipal, provincial, federal government partners. The PA provides counselling, advice, training, extension and educational programs that result in enhancing the beekeeping industry growth. The PA represents the department in a technical capacity on various industry, research organizations and committees at provincial, national and international levels.

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Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

1. **Provide expertise and leadership to Alberta Apiculture industry and implementing *the Bee Act* and its regulation across the province.**

Activities:

Provide effective leadership and expertise to carry on the provincial Apiculture program to contribute to the ARD initiatives through effective communications and partnerships.

Identify opportunities that lead to business and market development for the beekeeping industry.

Implement the *Bee Act* and its regulations: update regulations and get approval of legislative counsel as needed; supervise the annual updating of beekeeping registrations and prepare statistics of the industry to disseminate to appropriate provincial and federal departments; recruit, train and supervise apiculture inspectors and provide inspection as required by the *Bee Act*; issue phytosanitary certificates for export honey and health certificates for movement of bees.

Develop response plans and recommendations for pest and disease control and any emerging pests: updating emergency registration of used pesticides with federal agencies; lead development and delivery of Pest Management Plan; lead development of national safety plan for bee health, produced honey and marketing.

Conduct client surveys to obtain industry information to develop policies.

Respond to ministerial action requests, industry-related peers and public/media enquiries.

2. **Defining, capturing and delivering new and emerging technology for growth and improving of apiculture throughout Alberta.**

Activities:

Review recent published literature, extension publications and reported research in conferences to define and capture developed technologies in apiculture, business development and related fields.

Lead development of provincial information packages to deliver new technologies to beekeepers:

write extension articles in industry newsletters;

develop internet based information for Ropin' the Web;

train the trainee and provide information to the Ag Info Centre to ensure prompt client service;

coordinate and implement technical meetings, workshops and field schools to producers and specialists, and give oral presentations of information to clients and peers to expand business knowledge and technologies; bring national and international speakers to update industry with recent technologies.

3. Initiate research projects to test and develop technologies to assist the beekeeping industry to be competitive and sustainable.

Activities:

Identify and prioritize new emerging issues, growth points and research needs with industry executives in Alberta and across Canada through Competitive Intelligence.

Initiate research projects, collaborate or encourage appropriate research institutes to address these needs using creative approaches and experimental design.

Seek funds from various provincial and federal funding agencies and industry organizations.

Budget funds and lead administration of projects.

Execute experiments and report results.

Design experiments, collect data, in-depth statistical analysis of data, and report results at national and international scientific conferences.

Publish results in refereed Journals and extension publications as integral part of the project to benefit the industry.

4. Bring leadership that promotes networking between the beekeeping industry, ARD Divisions, other commodity organizations, educational institutions and provincial, federal government partners.

Activities:

Represent the department in technical capacity on various industry, ARD research organizations, educational institutions, and committees at provincial, national and international levels.

Provide apiculture and entomology expertise, counselling, advice, training, extension and educational program to other partners in enhancing the beekeeping industry.

Facilitate strategic alliances with other ARD divisions, or other stakeholders to plan regional provincial initiatives that lead to growth of the industry.

Identify and link industry to sources of expertise in various areas and funding for business development.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

Provide leadership and think strategically to build the Alberta Apiculture capacity that leads to significant contribution to the ARD business plan.

Provide wide impact at provincial and national levels through the administration of the Bee Act and its regulation that required interaction with clients from all provinces and federal regulatory agencies.

Role encompasses the role of a program leader, scientist, researcher, extension specialist, technology transfer specialist, policy advisor, consultant and regulator as the situation dictates.

Identifying emerging bee health and food safety issues for the province and interact with various national and international regulatory agencies to develop strategies to manage risks and support market access.

Provide expertise and scientific support to stakeholders that include beekeeping and crops' organizations that benefit from honey bee pollination.

Work outside the existing policies and processes to create new synergies and innovative solutions.

Expected to lead, manage and serve on projects that are varying in size, specific or multiple stakeholders, single or multi-disciplinary, and geographically diverse so that taking responsibilities for deliverables and outcomes to help the industry accomplish their goals.

Collaborate with clients, industry leaders, ARD Scientists, Ag Info Centre, communication personal.

Conduct research, publish peer reviewed publications, prepare extension publications and make presentations at provincial, national and international conferences.

Integrate knowledge to develop solutions in wide range of related areas including pollination ecology, crop systems, bee management, breeding, nutrition, disease and pest control, and economics.

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

M.Sc in Entomology (Apiculture) or related fields plus at least 6 years of experience in Apiculture.

Eligible for membership in the Alberta Institute of Agrologists.

In depth knowledge of Apiculture, and agriculture industry.

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Demonstrate strong leadership to diverse multidisciplinary teams.

Exceptional problem-solving skills, innovative, proactive and responsive to change.

Ability to manage projects to completion. Ability to perform self directed and independently.

Team player with strong interpersonal skills.

Consensus building and team-building skills.

Thorough knowledge of principles, theories, experimental design, data analysis, interpreting data, support information with accurate graphs, tables and figures and publishing in refereed journals.

Outstanding written and oral communication skills.

Understanding scientific information and the ability to synthesize information into simple, effective knowledge packages for extension purposes.

Basic knowledge of policy, legislation, administration of regulation and animal health surveillance.

Computer skills in word processing, spreadsheets, statistical software, Internet.

Contacts

(Main contacts of this position and the purpose of those contacts.)

Internal:		
Technical Staff	Daily	Leadership/advice/planning/coaching
Branch Head	Weekly	Communication/strategic planning
Food Safety Division	As Needed	Communication
Ag-Info-Centre	As Needed	Communication
Division Leadership Team	As Needed	Communication/Policies/Procedures
HR and Finance	As Needed	Policies/Procedures
External:		
Key Industry Partners	Weekly	Communication/collaboration
Pest Management Regulatory Agency (PMRA)	As Needed	Communication/collaboration
Canadian Food Inspection Agency (CFIA)	As Needed	Communication/collaboration
Other Provincial Agriculture Ministries	As Needed	Communication/collaboration
Agriculture & Agri-Food Canada (AAFC)	As Needed	Communication/collaboration
Other Alberta Government Ministries	As Needed	Communication/Collaboration

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Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

00000610 Technologies 4 – Apiculture Research Technologist (permanent)

00036198 Technologies 4 – Apiculture Research Technologist (temporary)

Technologies 2 – Bee Inspector (2 wage employees)



Last Review / Update: 2016-03-11

Opted out and Excluded Benchmark Evaluation - 523AG05

Identification Section

Working Title: Provincial Livestock Welfare Specialist

Department: Agriculture and Forestry

Division, Branch/Unit: Food Safety Division, Office of the Chief Provincial Veterinarian/Livestock Welfare Unit

Reports To: Unit Lead, Livestock Welfare

Levels to D.M.: 5

Job Description: [523AG05](#)

MRS: See the Minimum Recruitment Standard for [Agrologist](#)

Job Code: [523AG](#) - Agrologist Level 3

[Organization Chart](#)

(requires login)

Comments on Role

Reporting to the Unit Lead of Livestock Welfare, the Provincial Livestock Welfare Specialist provides leadership and technical expertise to Alberta's livestock industry on livestock care related to food animal production. The livestock welfare specialist develops and conducts inter-disciplinary applied research projects and delivers extension programs in partnership with livestock industry groups, university researchers and government specialists in areas which will impact the quality of animal life, such as husbandry practices, disease, invasive procedures and the environment. The position promotes the humane care and responsible use of animals.

Evaluation	
Knowledge	
FI2 264	
↓	
Creativity/Problem Solving	
38% 100	
↓	
Responsibility	
B 100	
↓	
TOTAL JOB POINTS	
464	

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Comments on Evaluation

- **Knowledge:**

- Content:**

- **F:** This is a specialist position that is viewed as the provincial expert in livestock care as it relates to food animal production. The position requires extensive knowledge in livestock husbandry and commercial farming systems, as well as thorough knowledge of animal behaviour science, research methodologies, and experimental design. The position is required to teach, initiate, develop, lead and research various initiatives. For example this position is tasked with developing and conducting independent and interdisciplinary research programs in partnership with a variety of stakeholders. Once this research is complete the position is tasked with taking the new knowledge and integrating it into extension programs to create increased awareness and understanding among animal care groups, livestock industry, etc. The depth of knowledge required in both research and livestock care combined with the breadth of knowledge required in adult education and extension programs in order to develop needs assessments, program design, delivery and evaluation push this job to an F knowledge rating. An E+ would not require this combined depth and breadth of knowledge. The minimum education required for this position is a related Master's Degree.

- Complexity and Diversity:**

- **I:** Position is responsible for a variety of initiatives including research, education programs, public awareness programs, strategic planning and identification of industry opportunities. In order to complete these initiatives effectively the position must have a complete understanding of livestock industry operations and the role of the Ministry when coordinating projects between stakeholders.

- Human Relations Skills:**

- **2:** This position operates at the Human Relations Skill level of 2. The Livestock Welfare Specialist is expected to take a lead role in livestock welfare awareness initiatives and ensure communication/coordination between stakeholders. Position is also required to provide technical training programs to ARD staff and industry leaders to increase the awareness and understanding of livestock welfare. Interpersonal skills are required as the position functions as a member of inter-disciplinary teams that consist of government and non-government members (provides expert advice and recommendations). External stakeholders include university researchers and livestock industry groups.

- **Creativity/Problem Solving:**

38%: The position spends a great deal of time interacting with different stakeholders in various capacities from internal to industry. For the most part solutions can be found within the existing body of knowledge however, the position is required to

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Classification: Public



conduct applied research assignments to further develop knowledge, protocol, practices, etc. around livestock welfare. The outcomes of research projects are not entirely known until the research is completed. The duties that include teaching, developing and facilitating can be completed using knowledge found within the positions' possession. The position is considered higher than a 33% because the position participates in the development of new procedures and analysis of initiatives in program development and research. 38% represents the accurate score because the position is considered to be at the highest level of operational thinking.

▪ **Responsibility:**

B: The Provincial Livestock Welfare Specialist is considered balanced as it focuses on program delivery (extension and technology/knowledge transfer) and applied research in such areas as husbandry practices, disease, invasive operations and the environment.

Last Reviewed: November, 2009

Alberta Government

Last Review / Update: 2016-03-11

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Classification: Public

Alberta Government

Opted Out and Excluded Benchmark Job Description - 523AG05

Identification Section

Working Title: Provincial Livestock Welfare Specialist

Department: Agriculture and Forestry

Division, Branch/Unit: Food Safety Division, Office of the Chief Provincial Veterinarian/ Livestock Welfare Unit

Reports To: Unit Lead, Livestock Welfare

Levels to D.M.: 5

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

Reporting to the Unit Leader of Livestock Welfare, the Provincial Livestock Welfare Specialist provides leadership and technical expertise to Alberta's livestock industry on livestock care related to food animal production. With considerable scope for independent action, this position develops and conducts interdisciplinary applied research and delivers extension programs in partnership with livestock industry groups, university researchers and government specialists in areas which will impact the quality of animal life such as husbandry practices, disease, invasive procedures and the environment. The position promotes the humane care and responsible use of animals.

Livestock welfare is a growing expectation of society and is increasingly recognized by the livestock industry as a major opportunity to increase productivity. It is also important to maintain market access to major food companies who are including livestock welfare audits in their quality assurance protocol for supplies. A major challenge for this position is in developing and promoting livestock production practices that can be measured.

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Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

1. Facilitate awareness and implementation of technologies on livestock care related to food animal production.

Activities:

Build partnerships and network with ARD staff, producers, animal care groups, i.e. Alberta Society for the Prevention of Cruelty to Animals (ASPCA), Alberta Farm Animal Care Association (AFAC) and livestock industry stakeholders, to create awareness, understanding and integration of animal welfare into research and extension programs.

Work with industry partners and researchers and ARD staff to identify those new technologies in animal production that could significantly improve the competitiveness of Alberta's livestock industry.

Facilitate the packaging of appropriate technical information for client groups.

Take the lead role in livestock welfare public awareness initiatives and ensure communication and coordination between stakeholders.

Provide technical training programs to ARD staff and industry leaders/producers to increase information dissemination and understanding.

Design and delivery of extension programs.

2. Develop and conduct independent and interdisciplinary, team oriented extension and research programs in partnership with livestock industry groups, university researchers and government specialists. Research is related to on-farm livestock management practices, transportation of livestock, housing systems, stockmanship skills, and marketing systems (auction and slaughter).

Activities:

Identify research needs in the areas of humane care of animals, early disease detection and standards of animal care.

Designs research projects in consultation with industry stakeholder; collects and analyses data, and actions final research report.

This research is then used to determine Alberta's standards of care for animals, and is utilized in developing extension programs and materials, as well as advising Ministry officials on strategies, regulations and standards related to livestock welfare.

Identify extension needs and priorities through consultation with industry.

Advise and/or cooperate in extension programs.

Conduct extension programs including designing and implementing needs assessments, program design and delivery and program evaluation.

Provide livestock care expertise to the design, testing and evaluation of livestock production and management equipment in partnership with department engineers.

3. Develop and implement a strategic plan and direction for livestock welfare programs in collaboration with Unit Leader.

Activities:

Liaise and network with livestock industry, universities, animal care groups (ASPCA, AFAC) and department staff. Provide needs assessment analysis into strategic direction of livestock welfare program.

4. Maintain professional expertise in livestock welfare.

Activities:

Review of the most current scientific literature developed worldwide.

Participate in key departmental, professional and industry committees.

Attend relevant conferences, training sessions and symposiums.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

Provide leadership to encourage various partners (government specialists, veterinarians, universities, livestock groups) to work collaboratively and with shared financial resources in developing strategies that address livestock care issues related to food animal production throughout the province.

Represent the Ministry and the province in regional (Prairie Provinces), national and international meetings and gatherings related to livestock welfare.

Coordinate livestock welfare initiatives to ensure cohesive, proactive public communications.

This position coordinates and acquires input on the livestock welfare program with Agriculture and Agri-Food Canada (AAFC), University of Alberta, University of Calgary, outside the government.

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Work with livestock producers, commodity groups, academia, and research organizations to integrate, conduct and coordinate livestock welfare extension programs.

Work closely with funding agencies such as Alberta Livestock Industry Development Fund (ALIDF), and the Canadian Adaptation and Rural Development (CARD), to secure funding for new initiatives.

Interact with a wide range of people including industry leaders, ARD directors, and others to address livestock welfare issues arising as a result of expanding confined feeding operations.

Build an international connection by providing expertise through reviewing documents and/or invitations to seminars.

Maintain ongoing dialogue through network of scientists, technical specialists, leaders from livestock industry and environmental groups to be aware of issues and trends affecting livestock care.

Advise managers and the Minister on strategies, regulations and standards related to livestock welfare. As well serves as a technical contact for all concerns and requests that the Minister's office and other offices within the Ministry receive regarding livestock welfare.

Within ARD, this position interacts with other specialists from different disciplines (forage and livestock specialists, engineers, meat inspectors, brand inspectors, nutrient management) to ensure an integrated livestock welfare program.

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

Knowledge:

Extensive knowledge in livestock husbandry and commercial farming systems.

Extensive knowledge of extension processes including needs assessment, program design, program delivery and evaluation.

Thorough knowledge of animal behaviour science, research methods.

Knowledge of relevant Acts, Regulations, policies and directives.

Skills:

Ability to plan, conduct and evaluate integrated extension programs.

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Ability to lead and work on teams.

Strong computer skills, leadership, problem solving and change management skills.

Skilled in building partnerships and meaningful networks with a variety of partners and able to integrate their needs into branch plans.

Strong communication, public speaking and interpersonal skills.

Ability to see the big picture.

Flexible and innovative.

Able to manage budget and different sources of funding.

Education and Work Experience:

M.Sc. with extensive experience related to animal care, management systems for food producing animals, or related disciplines.

Extensive related experience combined with a proven extension track record.

Significant experience working in partnership, cooperative or collaborative arrangements.

Licence(s) or Certification:

Member of a professional, self-regulating body in Alberta, i.e. Alberta Institute of Agrologists (AIA).

Contacts

(Main contacts of this position and the purpose of those contacts.)

Internal contact for technical questions from the Minister's office and other ARD staff.

Other staff from related disciplines (meat inspection, brand inspection, livestock specialists, nutrient management specialists) to ensure an integrated livestock welfare program.

Alberta Farm Animal Care Association (AFAC).

Alberta SPCA.

Agriculture and Agri-Food Canada.

University of Alberta.

Commodity Groups (i.e. Alberta Beef Producers, Alberta Pork, Alberta Chicken Producers, Alberta Egg Producers, Alberta Hatching Egg Producers, Alberta Turkey Producers, etc.)

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Classification: Public



Funding agencies such as the Alberta Livestock and Meat Agency and the Canadian Adaptation and Rural Development Agency to secure funding for new initiatives.

Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

N/A



Last Review / Update: 2016-03-11

Opted out and Excluded Benchmark Evaluation - 522AG07

Identification Section

Working Title: Livestock Statistician

Department: Agriculture and Forestry

Division, Branch/Unit: Economics and Competitiveness Division, Statistics and Data Development Unit

Reports To: Branch Head, Statistics and Data Development, Senior Manager

Levels to D.M.: 4

Job Description: [522AG07](#)

MRS: See the Minimum Recruitment Standard for [Agrologist](#)

Job Code: [522AG](#) - Agrologist Level 2

[Organization Chart](#)

(requires login)

Evaluation Knowledge
E+I2 230
↓
Creativity/Problem Solving
38% 87
↓
Responsibility
B 87
↓
TOTAL JOB POINTS
404

Comments on Role

This is an advanced professional position involved in the planning, coordination, and management of a provincial program responsible for research, development and analysis of statistical data and information on livestock and livestock products. This position provides all sectors of the agriculture industry with up-to-date livestock and livestock products statistics and information, including inventory estimates, small area estimates, production and markets information for Alberta and Canada. The Livestock Statistician is responsible, as part of the Federal/Provincial Agreement on Agricultural Statistics, for

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providing expertise to Statistics Canada in gathering and developing statistical data for livestock and livestock products in Alberta. The position also provides expertise, analysis and interpretation (including implications for policy) to department staff, other government departments and industry.

Comments on Evaluation

- **Knowledge:**

- **Content:**

- **E+:** The position requires in-depth knowledge of statistical theory including correlation and regression analysis and econometrics, survey design, sampling techniques, and interpretation of statistical parameters combined with a sound knowledge of livestock and livestock products, as well as livestock production management systems. This position was given an 'E+' in content knowledge because of its depth of knowledge required in statistical theory, but lacks the combination of breadth and depth of knowledge seen at the F level of content knowledge in similar expert positions.

- **Complexity and Diversity:**

- **I:** The job is a statistician and project leader. The work is specialized within the livestock industry. Position plays an advisory role and must be effective in conveying the proper messages to the stakeholders. As a result, the position must be able to integrate and analyze complex issues and solutions for the benefit of the stakeholders.

- **Human Relations Skills:**

- **2:** This position is required to have strong communication and team skills to provide leadership and technical supervision to direct various projects. There is significant contact outside of the Statistics and Data Development Unit with other specialists, researchers, industry and producers as an advisor. The position will gather data and make recommendations to influence the direction of policy or industry practices. Position translates complex concepts and data into forms that can be easily understood. Given the project leadership and advisory nature of the position, a '2' in Human Relation Skills is demonstrated. The job does not face the emotional or intense conflict resolution as seen at the '3' level.

- **Creativity/Problem Solving:**

38%: This position's thinking is guided within a broadly defined environment where there are for the most part clearly defined policies, objectives, and practices. The issues this position faces are generally known, it is however, the solutions that are unclear. The position must utilize their body of knowledge and experience base to identify, define, analyze and develop alternative courses of action or new initiatives in the area of policy development and research. The 33% problem solving rating involves primarily analysis with few recommendations, this position goes beyond this level into the 38% as it is fully expected

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to utilize its knowledge base and expertise in statistics to analyze and interpret data including identifying implications for the department in areas like business planning as well as program and policy development.

▪ **Responsibility:**

B: The focus of the position is to provide expertise, analysis and interpretation of livestock statistics to a variety of stakeholders. Position is responsible for both the development of the statistical information as well as plays a key role providing expertise and advice to internal and external clients on livestock and livestock product issues. Position has a balance between development and implementation.

Last Reviewed: November, 2009



Last Review / Update: 2016-03-11

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Classification: Public



Opted Out and Excluded Benchmark Job Description - 522AG07

Identification Section

Working Title:	Livestock Statistician
Department:	Agriculture and Forestry
Division, Branch/Unit:	Economics and Competitiveness Division, Statistics and Data Development Unit
Reports To:	Branch Head, Statistics and Data Development, Senior Manager
Levels to D.M.:	4

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

This is an advanced professional position involving planning, coordination, and leading a provincial program responsible for research, development and analysis of statistical data and information on livestock and livestock products. This position is the provincial specialist who provides all sectors of the agriculture industry with up-to-date livestock and livestock products statistics and information, including inventory estimates, small area estimates, production and markets information for Alberta and Canada. The Livestock Statistician is responsible, as part of the Federal/Provincial Agreement on Agricultural Statistics, for providing expertise to Statistics Canada in gathering and developing statistical data for livestock and livestock products in Alberta. Using advanced skills in survey design, statistical analysis and methodology development, the incumbent designs and undertakes farm level research to measure production at both the provincial and sub-provincial levels. As the provincial specialist, the incumbent provides expertise, analysis and interpretation (including implications for policy) to department staff, other government departments and industry.

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Classification: Public



Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

1. **Appropriate, sound statistical methodologies are developed, estimates generated and econometric analysis performed, in order to provide internal and external clients with necessary and timely statistical reports, measures and indicators in the area of livestock, to be used for business planning, program and policy evaluation, monitoring industry growth, etc.**

Activities:

Develop and publish livestock inventory estimates at the provincial level.

Develop and publish livestock inter-censal revisions, where appropriate.

Estimate the value of breeding stock at January 1/July 1.

Estimate and publish Alberta's Annual Honey Production.

Prepare appropriate Agri-Food Statistics Updates for Alberta.

2. **Identifies, designs and implements new initiatives to target appropriate information and data gaps, for the benefit of internal and external clients, to ensure that relevant statistics are available for their decision making, business planning, growth strategies, etc.**

Activities:

Need to actively identify data gaps of clients and ensure to the extent possible, that appropriate databases on livestock statistics are generated/maintained. The challenge is met by dialoguing with industry, subject area specialists, etc. in the development of appropriate statistically sound methodologies, to capture and generate accurate data (e.g. estimating the value of breeding stock on Alberta farms).

Provide leading edge statistics, provincial/sub-provincial in scope, for industry and other stakeholders (e.g. 2006 Census of Agriculture data for traditional and alternative livestock).

Where appropriate, investigate and fill data gaps with alternative sources of data, as traditional sources are lost (e.g. use of the Internet, industry statistics, partnering with stakeholders, etc.).

Conduct appropriate surveys to fill data gaps. For example, the Beekeepers Survey for Alberta is conducted annually, to generate statistics on yield, production, colony numbers etc, for use by the Alberta Beekeeper's

Association, producers, Statistics Canada, Alberta Agriculture and Rural Development (ARD) staff and other stakeholders.

- 3. Maintenance of a comprehensive database on livestock statistics for Alberta, to ensure that relevant statistics are available to internal and external clients, for use in decision making, business planning, development of industry growth strategies, etc.**

Activities:

Continue to monitor AGDATA (Agricultural Commodities Database), to ensure that both historic and new livestock data series (e.g. prices, slaughter data, etc.) are maintained.

Ensure that new data series created are posted to AGDATA.

Collaborate with the Unit's data management administrator, to ensure that user friendly data retrieval systems are in place for the extraction of livestock statistics.

Where appropriate, investigate and fill data gaps with alternative sources of data (e.g. use of the Internet, surveys, industry statistics, partnering with stakeholders, etc.)

Where appropriate, partner with stakeholders to purchase livestock data (e.g. Canfax subscription for cattle prices is shared with some of the other Divisions), to maintain appropriate series.

- 4. Provides expertise and play an advisory role on livestock and livestock product statistics and livestock related issues to internal and external clients.**

Activities:

As the provincial contact, works closely with the federal government on livestock issues, particularly, those of interest to Alberta.

Review methodologies where appropriate (e.g. Livestock Survey Redesign for cash receipts estimation), and provide input and make recommendations on the statistical estimates to be published by Statistics Canada (e.g. inventory estimates for cattle, hogs and sheep, which are done either semi-annually or quarterly).

Provide input and make recommendations to Statistics Canada on inter-censal revisions for livestock in Alberta.

Is the provincial contact when working with the federal government on national projects (e.g. Feed Grain Flow Study, etc.) – responsible for addressing and advancing Alberta's interests, including setting up and involving appropriate team of experts to work on issues, etc.)

5. Provide technical support and expertise for collecting data and information on alternative livestock (i.e. non-traditional farm animals).

Activities:

Review methodology and provide input on provincial farm income and expense items relating to livestock, in co-operation with Statistics Canada.

Review methodology and provide input on provincial/national forecast of farm income and expense items relating to livestock, in co-operation with Agriculture and Agri-Food Canada.

Develop appropriate methodologies to produce accurate data (e.g. estimating the value of breeding stock on Alberta farms; valuation of a bred gilt, etc.), for use by Statistics Canada.

Respond to requests from clients for “best” data and information on the livestock sector.

Participate in and provides statistical expertise on various department/industry driven livestock related projects (e.g. Competitiveness Initiative – Beef Value Chain, traceability, etc.).

Provide expertise, analysis and interpretation (including implications for policy, program development, etc.), particularly to ARD staff, other government departments, industry and other stakeholders.

6. Communication is a strategy used to ensure that internal and external clients are aware of the livestock and livestock product statistics available, in order to make well, informed decisions.

Activities:

Publish appropriate livestock and livestock product statistics for Alberta and highlights, using various modes of communication, including: Agri-Food Statistics Update (e.g. inventory estimates), Agri-News, Intranet/Internet, etc.

Prepare Key Messages and Implications for Alberta’s livestock industry, for use by the minister, executive and senior level management, ARD Communication Branch, where appropriate.

Review and provide input on livestock related communiques’ prepared by ARD’s Communication Branch (e.g. speeches, industry correspondences, etc.)

Provide periodic updates to the Unit and other ARD staff on developments and issues relating to livestock.

Attend industry meetings where appropriate, to network and keep informed on livestock issues, and in meeting some of industry’s data and information needs.

7. The Livestock Statistician has access to a wide range of highly classified livestock and livestock product statistics (e.g. inventory/farm income estimates, personal information, etc.), from a variety of sources,

including Statistics Canada, producer surveys, etc., and is required to have a strategy in place, to ensure that data confidentially is not breached, in the provision of statistics.

Activities:

As official gatekeeper, ensure that confidential livestock data are secured at all times (e.g. strict protocol in place as to who have access to personal producer information on Alberta's honey survey, etc.)

During department/industry consultations, confidential data is not shared with staff outside the Unit, when seeking their input (e.g. livestock inventory estimates, farm income, etc.)

Protocol in place to ensure strict adherence to Statistics Canada licensing agreement on purchases of electronic data (e.g. use of passwords, authorized personnel, and designated computers).

8. Carry out special projects and duties.

Activities:

Serve on ARD work teams and committees.

Contribute to Divisional/Department projects/initiatives.

Attend training courses, workshops and seminars for professional development

Complete internal administrative tasks such as business planning and performance development.

Member of Unit Survey Services Team (e.g. assists in questionnaire review/design, determining sample size, etc.).

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

Benchmark statistics (e.g. livestock inventories, prices, slaughterings, marketings, production estimates etc.), for Alberta are made available to ARD staff, for use in program and policy evaluations, development of industry growth strategies, study evaluations, Business Planning, Department Measures, etc. The statistics are also used by producers, industry, financial institutions (e.g. AFSC, Alberta Treasury Branch), educational institutions, consultants, media, etc., for the monitoring of industry growth, business planning, study evaluations, etc.

Partners with ARD staff across various disciplines (e.g. market analysts, production specialists, etc.)

As the provincial contact and specialist on livestock issues, acts on behalf of ARD staff, industry and other stakeholders, to ensure that Alberta's interests are advanced in appropriate forums such as at the Federal/Provincial/Territorial meetings on

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Agricultural Statistics (e.g. need for more value-added statistics and benchmark data on food safety and the environment); “Work-in-Progress” consultations with Statistics Canada and Agriculture and Agri-Food Canada (e.g. estimation/forecasts on livestock items for Alberta’s farm income and expenses, inventory estimates).

Canvassing input from industry and ARD staff (where appropriate), data methodologies are developed for use by Statistics Canada (e.g. estimation of average breeding stock values, estimation of sow prices, etc.)

Expertise is provided to industry, government and other stakeholders, in analysis and interpretation of livestock statistics for Alberta/Canada (e.g. on trade issues such as Canada/US Beef Countervail action; preparation of the Department’s “Key Messages” and Agri-Food Statistics Updates for the Minister and senior level management; policy and program evaluations – e.g. Bovine Spongiform Encephalopathy or BSE program payments).

Service and process regular/customized requests for livestock and livestock product statistics by internal users (staff from other Divisions of the Department), and external clients (e.g. industry, producer associations, municipal government, lending institutions, legal counsel, etc.). The data is usually manipulated at a more complex level, than a simple, straightforward data retrieval process (e.g. estimating slaughter cattle production, inventory estimates, breeding stock values, etc.)

As expert, provide on-going data support to ARD staff, industry and other stakeholders. Such support requires understanding what statistics are available and how best the data can be utilized by clients. Must also proactively consult with ARD staff, industry and other stakeholders, to ensure that their data needs are continually being met, to the extent possible.

Attend appropriate livestock industry association meetings/forums to keep abreast of developments and issues facing the livestock industry (e.g. attending the Canadian Cattlemen’s Association meetings, Alberta’s Annual Beekeepers’ Convention, etc.)

Required to work in a multi-disciplinary team setting when generating certain complex statistics such as inventory estimates, farm income and expense estimates for livestock items. Liases with the federal government (Statistics Canada), other provincial governments (e.g. monitoring feeder cattle imports), industry, Department subject area specialists (e.g. analysts), and others, to canvass their input, when developing the estimates. The input gathered supplements a set methodology that incorporates survey and administrative data, statistical analyses, experience, and logical thought.

Creative thinking is required to fill some data gaps. For example, designing and implementing the use of a provincial industry survey for Alberta’s Beekeepers, to capture key production statistics for the honey industry, which otherwise would be non-existent. The survey forms the basis from which provincial statistics on production, yield, colony numbers, prices, etc., are generated, for use by Industry, Statistics Canada, producers and other stakeholders.

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

Knowledge:

Minimum of a Bachelors of Science degree, with significant course work in statistics and a thorough understanding of some of the principles, concepts and practices of both statistics and agricultural economics. Master of Science preferred.

Eligibility for membership or a member of Alberta Institute of Agrologists.

In-depth practical knowledge of the livestock industry and issues in Alberta and Canada (e.g. management practices associated with raising cattle, hogs, and sheep statistics, etc.)

Familiarity with livestock production management systems.

Superior, technical and analytical problem solving skills, including the application of statistical theory in provincial /national statistical program initiatives.

Sound, practical knowledge of statistical theory, including correlation and regression analysis and econometrics, survey design, sampling techniques, interpretation of statistical parameters, etc.

Knowledge of research project design and statistical interpretation.

Familiarity with various computer software (e.g. Excel, Microsoft Word, Power Point) for spreadsheet and database management, graphics, statistical analysis and word processing.

Knowledge of the Canada Statistics Act – Appropriate and confidential handling and storage of sensitive data and information under the act is crucial.

Knowledge of Freedom of Information and Protection Of Privacy Act (FOIP) – Appropriate and confidential handling and storage of sensitive data and information under the act is crucial.

Skills:

Superior, technical and analytical problem solving skills, including the application of statistical theory in provincial /national statistical program initiatives.

Strong organizational skills.

Strong leadership skills.

Strong interpersonal skills.

Supervisory skills (e.g. coaching, mentoring, etc.)

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Excellent written, communication and presentation skills.

Strong networking skills.

Abilities:

Ability to lead, co-ordinate and manage projects.

Ability to multi-task and meet deadlines.

Ability to handle confidential and highly sensitive data and information.

Ability to interpret statistical data and make linkages.

Ability to work independently and in team settings.

Demonstrated ability to prepare technical reports.

Attention to detail, particularly to data and information accuracy, in a timely fashion.

Contacts

(Main contacts of this position and the purpose of those contacts.)

Internal:		
Statistics and Data Development Branch	Daily	Position provides assistance to the Branch Head and colleagues, when addressing livestock related issues.
Economics and Competitiveness Division	Weekly	Position provides statistical expertise, data and information support, in the area of livestock statistics, to assist staff in delivering quality products and services.
Other Alberta Agriculture and Rural Development divisions	Monthly/As Required	Position provides expertise, data and information support on ministry led initiatives.
Minister's Office/Executive Team	Monthly/As Required	Act on Ministerial Action Requests relating to livestock, and prepare relevant briefings, advisory notes, and updates on Statistics Canada releases.
External:		
Other Alberta Government Departments	Monthly/As Required	Position assists the Branch Head in the provision of expertise, data and information support on livestock related

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		issues, to support Government of Alberta led initiatives (e.g. the Office of Statistics and Information).
Federal Government Departments (Statistics Canada; Agriculture and Agri-Food Canada)	Weekly/ Bi-weekly	Collaboration in: (1) the estimation/forecasting of alberta farm income variables (farm cash receipts and farm operating expenses), as they relate to livestock; and (2) reviewing and updating methodologies and addressing data gaps.
Producers, news media, farm organizations, financial institutions, educational institutions, consultants, and the general public.	Daily	Position provides accurate and timely statistical data and information, including reports and customized information packages (e.g. data tables, charts, explanatory notes and text), to meet clients' needs. Also, works with industry to fill data gaps (e.g. Alberta Beekeepers).
Ministries of Agriculture in other provinces	Occasionally	Collaboration, where necessary, for the purpose of ensuring common approaches in addressing livestock issues, methodologies, etc., and sharing unique data/information.

Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

N/A

 Alberta Government

Last Review / Update: 2016-03-11

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 Alberta

Opted out and Excluded Benchmark Evaluation - 522AG08

Identification Section

Working Title: Crop Specialist

Department: Agriculture and Forestry

Division, Branch/Unit: Rural Extension and Industry Development
Division/Ag-Info Centre

Reports To: Branch Head, Ag-Info Centre (Senior Manager)

Levels to D.M.: 4

Job Description: [522AG08](#)

MRS: See the Minimum Recruitment Standard for [Agrologist](#)

Job Code: [522AG](#) - Agrologist Level 2

[Organization Chart](#)
(requires login)

Evaluation
Knowledge
E+I2 230
↓
Creativity/Problem Solving
38% 87
↓
Responsibility
B 87
↓
TOTAL JOB POINTS
404

Comments on Role

The Crop Specialist provides the primary ARD direct delivery of information and services to producers and agricultural clients in Alberta. This position provides leading edge, unbiased information about field crops in all areas of production. Clients are advised through the toll free line, email, fax, internet, speaking engagements and information packaging. The Crop Specialist acts as an important source of expertise for clients as they work through decision-making processes regarding the crops they currently produce or are considering producing. The majority of the work is devoted to service inquiries and the rest towards project teams.

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Comments on Evaluation

- **Knowledge:**
Content:

- **E+:** The Crop Specialist requires a Science Degree in Agriculture with a specialty in crop, plant, soil science or agronomy. The position provides important expert information to stakeholders for the purpose of them increasing their competitive advantage in the agri-food industry in Alberta. For example, the position must be able to research and convey a wide breadth of information about: seeding, crop establishment, crop varieties, cropping plans, fertility, insects, weeds and pathogens and their controls, harvesting, crop storage, marketing, legislation and regulation. This example requires the position to possess a strong working knowledge and understanding of a wide range of topics relating to the specialization. The position must also understand how farm management contributes to environmental quality issues and food safety, requiring a combination of theoretical and practical knowledge of farm/industry operations. This combined breadth and depth of knowledge creates a push on an 'E' for Content Knowledge.

Complexity and Diversity:

- **I:** Position must have a solid understanding of both the agricultural industry as well as the work being performed in other areas of the department in order to assist clients in their decision-making process. Position must be able to integrate and analyze new and existing production, marketing and management tools in order to increase client understanding, resulting in better decision-making and increased profitability.

Human Relations Skills:

- **2:** Position is a front-line advisor to a large variety of stakeholders. The Crop Specialist influences clients to use best practices to ensure environmental sustainability, business success, growth of the industry, and regulatory compliance. The position will be required to package information in a variety of ways for different audiences and communication mediums.

- **Creativity/Problem Solving:**

38%: The job identifies stakeholder issues, and then recommends approaches to be taken. Most problems are solved independently through existing knowledge base or research. The position is higher than 33% because each specialist is developing new solutions on an ongoing basis. The position is required to draw from its expertise and in-depth body of knowledge in completing the job duties.

- **Responsibility:**

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B: The focus of the position is providing clients with leading edge, unbiased information and consultation about field crops in all areas of production in a highly professional manner. The position does not make decisions, but rather advises and informs clients. A balance profile is accurate as for the most part this position plays an advisory/consultative role.

Last Reviewed: November, 2009



Last Review / Update: 2016-03-11

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Classification: Public



Opted Out and Excluded Benchmark Job Description - 522AG08

Identification Section

Working Title:	Crop Specialist
Department:	Agriculture and Forestry
Division, Branch/Unit:	Rural Extension and Industry Development Division/Ag-Info Centre
Reports To:	Branch Head, Ag-Info Centre (Senior Manager)
Levels to D.M.:	4

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

The Crop Specialist provides the primary ARD direct delivery of information and services to producers and agricultural clients in Alberta. This position provides leading edge, unbiased information about field crops in all areas of production in a highly professional manner. Clients are advised through the toll free line, email, fax, internet, speaking engagements and information packaging. The Crop Specialist acts as an important source of expertise for clients as they work through decision-making processes regarding the crops they currently produce or are considering producing. It is expected that 60% of the time will be devoted to servicing inquiries received at the Centre and 40% will be devoted to support of project teams and personal/professional development.

Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

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1. Assist current and potential clients to grow and become competitive, sustainable contributors to the agri-food industry in Alberta.

Activities:

Sort and review information to assist clients in their business clients in their business decision-making to improve production and profitability.

Deliver information to producers through a variety of mediums such as phone, fax, email, internet, media presentations and printed materials.

Utilize a collaborative approach for the development and delivery of information and technology.

2. Increase clients understanding and use of new and existing production, marketing and management tools.

Activities:

Develop individual producer decision-making abilities to increase profitability.

Partner with industry to assist in the flow of value-based marketing information to the primary producer.

Participate in industry driven projects that promote industry sustainability.

3. Promote awareness to ensure continued excellence in food safety.

Activities:

Increase public and industry awareness of issues and programs.

Incorporate department priorities' into appropriate production and marketing information to improve marketing opportunities.

Promote and support practices that encourage responsible pesticide use.

4. Improve environmental stewardship of soil and water resources.

Activities:

Promote and facilitate adoption of sound management practices that improve soil, water and air quality.

Increase awareness and acceptance of the Code of Practice among producers, rural residents and municipal governments.

New and innovative electronic and communication technology to provide quality client service work in partnership with Environment, PFRA, Conservation Development Branch and other agencies to develop extension programs, materials and activities.

Maintain knowledge of relevant acts.

5. Ensure ministry resources are managed efficiently and effectively.

Activities:

Continually improve quality of products and services provided to clients.

Maintain leading-edge knowledge of the latest technology through training events, seminars, conferences, trade shows, and literature and publication reviews.

Maintain professional competency through membership in appropriate professional associations.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

Projects – multiple and diverse projects or components of projects identified internally or with industry partners.

Stakeholders – producers, agriculture industry, ministry, colleagues and public.

Geographical spread – province wide service from the call centre, province wide resource available for selected training, tours, meetings, seminars or conferences.

Creativity – Writing, presenting, team collaboration, training and networking all contribute to a more creative perspective that can be applied to all aspects of the job.

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

Knowledge:

Bachelor of Science degree in Agriculture with a major in crop, plant, soil science or agronomy is essential.

Eligibility for membership in the Alberta Institute of Agrology is essential.

Strong Technical knowledge in production of all field crops grown in Alberta.

Extensive practical agronomic knowledge including: Seeding, crop establishment, varieties, cropping plans, fertility, insects, weeds and pathogens and their controls, harvesting, storage and marketing.

Knowledge of pertinent legislation such as Pest and Nuisance Control Regulation and Agriculture Operations Practices Act.

Understanding of agricultural and rural concerns.

Skills and Abilities:

Exceptional customer service and interpersonal skills to probe clients through questioning to determine clients needs.

Strong problem solving, negotiating, facilitating and conflict resolving skills that are used to give clients the tools to make decisions that best fits their needs.

Consult with internal staff and industry partners to identify concerns, issues, trends and new developments and work with partners to facilitate delivery of information.

Develop a significant network of industry contacts for client referral, partnerships and project collaboration .

Contribute expertise to department project teams.

Writing and editing skills to update and create new department fact sheets.

Effective communicating, listening, presenting and public speaking skills.

Computer skills (word processing, spreadsheets, presentations, email, internet navigation).

Flexible team player able to adapt to conflicting demands and changing priorities.

Identify gaps in information and organize training or follow-up.

Actively pursue knowledge to add value to crop production in Alberta.

Contacts

(Main contacts of this position and the purpose of those contacts.)

Phone Work:

People Who Call Us

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Primary Producers

Industry that works with primary producers

Agronomists who work with ag retailers

Independent Consulting Agronomists

Applied Research Groups

Fieldmen

Chemical sales reps

Media: Local, regional, provincial crop production related issues (Western Producer, Grain News, Country Guide, Top Crop Manager, Resource News, many local weekly newspapers, rural based radio such as CFCW, CKGY, and AM 1140 occasionally local television)

People We Call Frequently (support related to phone calls)

Internal ARD staff for information exchanges (i.e. Pest Management, Nutrient Management, Ag Tech Centre, Economics & Competitiveness, Library staff)

External

Agriculture and Agri-Food Canada Scientists

Saskatchewan Ministry of Agriculture and University of Saskatchewan

Industry Researchers and Technical Agronomists with Chemical, Fertilizer, and Grain Companies

University of Alberta researchers

Alberta Research Council

Canola Council Staff

Project Work

Ropin' the Web Documents: Target audience is primary producers in Alberta, but information is also applicable to SK and MB, and could be used by more distant primary producers.

Agronomy Networks: Participate in regular networking meetings during the growing season to keep up to date on current and developing issues (i.e. Canola Council, Alberta Pulse Growers, Pest Monitoring Network).

Conference/Workshop Planning: conferences with provincial (Agronomy Update, FarmTech) and national (Canadian Weed Science Society) focus.

Publications: Documents generally are geared toward primary producers in western Canada, but applications can go beyond this region. The annual guide to crop protection ("Bluebook") is widely circulated and used by producers and industry throughout AB. Compiling this document involves considerable interaction with Chemical company technical experts (on national or provincial basis), and ARD publications staff.

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Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

N/A



Last Review / Update: 2016-03-11

Opted out and Excluded Benchmark Evaluation - 522AG10

Identification Section

Working Title: Research Agrologist

Department: Agriculture and Forestry

Division, Branch/Unit: Irrigation and Farm Water Division/Water Quality Section

Reports To: Head, Water Quality Section (Manager)

Levels to D.M.: 5

Job Description: [522AG10](#)

MRS: See the Minimum Recruitment Standard for [Agrologist](#)

Job Code: [522AG](#) - Agrologist Level 2

[Organization Chart](#)
(requires login)

Evaluation
Knowledge
E+I2 230
↓
Creativity/Problem Solving
38% 87
↓
Responsibility
B 87
↓
TOTAL JOB POINTS
404

Comments on Role

The Research Agrologist performs professional work that facilitates the growth of the agricultural industry and enhances sustainable development through improved environmental stewardship. Reporting to the Water Quality Section Head, this position works with industry partners and other team members to plan and implement applied research and monitoring studies that mitigate agricultural impacts on water quality in agriculture areas of Alberta. The Research Agrologist works as a lead in a team environment to develop, adapt, demonstrate and scientifically evaluate the effectiveness of beneficial management practices in reducing nutrient loss to water. Technology transfer, including the preparation and development of information

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packages is an important role of this position. Additionally, the position is responsible for developing and fostering a diverse range of projects with numerous other agencies, industry groups and researchers.

Comments on Evaluation

- **Knowledge:**

- **Content:**

- **E+:** Requires an in-depth understanding of soil and water/environmental sciences in addition to research tools/scientific methods. The position must also have knowledge of current and emerging agricultural and environmental issues and trends, rangeland and riparian health assessment, and economics. This position is an E+ because of the depth of knowledge required to provide recommendations to committees, collaborate with professionals regarding research proposals and to carry out research projects. An E rating position does not have the same depth of knowledge and is not looked upon to coordinate projects across the province as is present in this role. This requires university graduation in Agriculture and eligibility for membership in the Alberta Institute of Agrologists.

- **Complexity and Diversity:**

- **I:** The position is looked upon to coordinate and lead a wide variety of research projects to evaluate the effectiveness of beneficial management practices in reducing nutrient loss to water.

- **Human Relations Skills:**

- **2:** In order to achieve results and complete required work, this position must influence and persuade behaviour within project groups in areas such as project scheduling and resource/service needs. These groups encompass staff both internal and external to the department.

- **Creativity/Problem Solving:**

38%: The position conducts planning activities within a technical committee framework. Project coordination and tracking progress of specific projects and associated resource budgets is a key component of the role. Another central component of the position is the ability to analyze and prepare technical reports on research data on the effectiveness of beneficial management practices in reducing nutrient loss to water, drawing on the theoretical and practical body of knowledge and experience that the position holds. Position is expected to go beyond analysis of information, taking research findings and providing scientific recommendations and evaluations that contribute to policy development. This level of problem solving falls in line with a 38% rating.

- **Responsibility:**

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B: This position provides expertise to technical committees as well as designing and developing research projects. This ensures that the research performed is completed within set parameters and sound scientific methods. To this end the function supports the work of positions performing the research. In addition, the position takes on a lead or team member role in applied research. These two components are best described within the balanced level of responsibility. A score of R1 is not accurate because the primary focus is not on process and program/service delivery. A C1 rating would not recognize the project coordination function.

Last Reviewed: November, 2009



Last Review / Update: 2016-03-11

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Opted Out and Excluded Benchmark Job Description - 522AG10

Identification Section

Working Title:	Research Agrologist
Department:	Agriculture and Forestry
Division, Branch/Unit:	Irrigation and Farm Water Division/Water Quality Section
Reports To:	Head, Water Quality Section (Manager)
Levels to D.M.:	5

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

This position performs advanced professional work that facilitates growth of the agricultural industry and enhances sustainable development through improved environmental stewardship. Reporting to the Water Quality Section Head, this position works with industry partners and other team members to plan and implement applied research and monitoring studies that mitigate agricultural impacts on water quality. The incumbent works as a lead in a team environment to develop, adapt, demonstrate, and scientifically evaluate the effectiveness of beneficial management practices in reducing nutrient loss to water. Technology transfer, including the preparation and development of information packages, is an important responsibility for this position. Additionally, the incumbent will be responsible for developing and fostering a diverse range of projects with numerous partners. These partners include Agriculture and Agri-Food Canada, Alberta Environment, Alberta Crop Industry Development Fund, Oldman Watershed Council, Irrigation Districts, watershed groups, and individual producers.

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Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

1. **Assess ecosystem components, including water and soil quality, to determine the effects of agricultural production on the environment.**

Activities:

Determine and/or design appropriate scientific methods for quantification and evaluation.

Provide leadership to coordinate data collection and verification.

Develop new techniques and employ cutting-edge technology to obtain the best data possible.

Develop data warehouses, conduct statistical analyses, interpret data, and transfer knowledge.

Assist in watershed assessment modeling development and validation.

2. **Work with other agencies, industry groups and researchers to evaluate land use impacts on the ecosystem, with emphasis on water quality, in Alberta.**

Activities:

Design sampling protocols to quantify nutrient loss from agricultural practices.

Plan and implement applied research to examine relationships between land use data and soil and water quality parameters (nutrient, bacteria, pesticides and pharmaceuticals).

Plan and implement applied research to determine potential impacts of manure management on water quality.

Work in multi-disciplinary groups of chemists, biologists, veterinarians, engineers, agronomists and limnologists.

3. **Work with industry groups, and research organizations to evaluate and develop cost effective and practical BMPs that mitigate agricultural impacts on watersheds for agricultural areas of Alberta.**

Activities:

Provide scientific evaluations of beneficial management practices that contribute to policy development.

Provide support in the economic assessment of beneficial management practice evaluation.

Develop information and assist in extrapolating the data to other provincial watersheds.

4. Support expansion of irrigation to increase opportunities for diversification and growth, while mitigating environmental impacts particularly on water quality.

Activities:

Collaborate with irrigation districts in measuring, recording, and calculating current supply and return flows, which will aid in the assessment of future water requirements and operational efficiencies.

Provide environmental sustainability recommendations to the districts.

5. Information Packaging and Technology Transfer.

Activities:

Prepare technical reports, journal papers, fact sheets, brochures, and other educational materials to disseminate information on applied research and monitoring studies to increase awareness of water quality issues and to promote adoption of cost-effective and scientifically validated beneficial management practices.

Prepare and deliver information for improving agricultural practices and water quality to producers, agricultural organizations, AF staff, and the general public.

Process, validate, analyze and summarize water flow and quality data, to provide agricultural industry partners an overview of surface water quality in the white zone throughout the year and historically with time.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

This position works closely with research scientists, professional and technical staff in the Division, cross-government ministries, industry, and other partner organizations. The Research Agrologist manages applied research, demonstration, and scientific assessment projects to ensure timely and accurate data collection, analyses and interpretation. Development of new and innovative applied research and monitoring techniques to assess agricultural impact on the environment, and the evaluation of the effectiveness of beneficial management practices are important components of this position. This position is responsible for coordination of work among field staff, and other involved agencies, and for the supervision of seasonal staff involved in assigned projects. This is an independent position, within a team framework, which is responsible for day-to day decision-making and problem solving. Work is carried out with minimal supervision. The scope of the position is province-wide.

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Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

M.Sc. in Agriculture, Environmental Science, or related field of study.

Eligibility with or member of the Alberta Institute of Agrolgists.

Knowledge of applied research and monitoring techniques for field and watershed ecosystem components.

Knowledge of national and provincial water quality issues and guidelines.

Knowledge of soil and environmental science, as well as the contaminant transport processes.

Knowledge of beneficial management practices for mitigation of adverse agricultural impacts on surface water quality.

Knowledge of laboratory procedures and equipment.

Skill in use of data loggers, automatic water sampling, and flow monitoring equipment.

Skill in use of computers for communication, data collection and statistical analyses, word processing, database management, presentation graphics, and the Internet.

Good leadership and partnering skills.

Good communication skills (technical and plain-language, written and oral).

Strong ability to work effectively as part of a team or independently.

Contacts

(Main contacts of this position and the purpose of those contacts.)

The position works as a team member within the Division and works closely with other government ministries (municipal, provincial and national), non-profit agencies, agricultural producers, and the industry to design and conduct research, determine and apply results, and disseminate information.

Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

This position is based in Lethbridge and supervises junior staff or summer students, as required.

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Classification: Public



Opted out and Excluded Benchmark Evaluation - 522AG09

Identification Section

Working Title: Nutrient Management Specialist

Department: Agriculture and Forestry

Division, Branch/Unit: Environmental Stewardship, Agri-Environmental Management Branch/Nutrient Management Section

Reports To: Nutrient Management Section Lead, Manager Zone 2

Levels to D.M.: 5

Job Description: [522AG09](#)

MRS: See the Minimum Recruitment Standard for [Agrologist](#)

Job Code: [522AG](#) - Agrologist Level 2

[Organization Chart](#)
(requires login)

Evaluation
Knowledge
E+I2 230
↓
Creativity/Problem Solving
33% 76
↓
Responsibility
B 76
↓
TOTAL JOB POINTS
382

Comments on Role

The Nutrient Management Specialist provides leadership and technical scientific expertise to provincial program development and management of leading edge applied research and technology transfer initiatives in the areas of nutrient utilization and efficiency. This position provides technical expertise in relations to the environmental aspects of uses of nutrients and manure and extends this information to the department, to the livestock and crop industries and to other government or non-government stakeholders. This is a working-level specialist that is involved in the development, implementation and evaluation of programs and initiatives relating to Nutrient Management information.

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Comments on Evaluation

- **Knowledge:**
Content:

- **E+:** The position requires formal academic preparation in agriculture with knowledge of soil science, nutrient management, livestock production and production agronomy. The position must have knowledge behind the development of adult educational programs and technology transfer principles. Knowledge of beneficial manure management practices and livestock production management for a broad range of livestock types and an understanding of soil biological processes relating to manure nutrient management. The push on the E is for the depth of knowledge in manure management that compliments general knowledge of agronomy.

- **Complexity and Diversity:**

- **I:** The position also requires knowledge of the issues facing the industry, the legislation and the resources available to assist stakeholders and how these fit into environmental and social economy philosophy.

- **Human Relations Skills:**

- **2:** HR skills are required to lead project teams. The position must also be able to influence stakeholders to commit time and resources to projects. There is also a requirement to influence the integration of practical manure management programs into farming operations.

- **Creativity/Problem Solving:**

33%: The incumbent is developing technology transfer material that is based on research developed by others. There is access to assistance from other staff in the Branch, including the senior Nutrient Management Specialist and the Section Lead. The position has latitude in responding to inquiries and designing programs. There is development of fact sheets and other materials, and development of ways to package and promote information in unique and efficient ways, which adds to the creativity component (33%). The position is not seen as at the 38% level because of the access to the senior level assistance.

- **Responsibility:**

B: This position has a balanced profile because it has a role in developing technology transfer materials, as well as a requirement to work with stakeholder groups to implement best management practices.

Last Reviewed: November, 2009

Last Review / Update: 2016-03-11

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Classification: Public



Opted Out and Excluded Benchmark Job Description - 522AG09

Identification Section

Working Title:	Nutrient Management Specialist
Department:	Agriculture and Forestry
Division, Branch/Unit:	Environmental Stewardship, Agri-Environmental Management Branch/Nutrient Management Section
Reports To:	Nutrient Management Section Lead, Manager Zone 2
Levels to D.M.:	5

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

The Nutrient Management Specialist provides leadership, technical and scientific expertise regarding nutrient management to the Environmental Stewardship Division, the livestock and crop industry, as well as a wide spectrum of other government and non-government groups and organizations. This position provides leadership and technical expertise to provincial program development and management of leading edge applied research and technology transfer in the areas of nutrient utilization and efficiency. The Nutrient Management Specialist conducts leading edge research on farm demonstrations and technology evaluation to assist in policy recommendations to the department and industry stakeholders to assist in the development of science-based livestock standards and regulations related to nutrient management in Alberta. Functioning within the new Departmental business plan Goal 3: Agriculture's competitive capacity is advanced through stewardship.

Utilizing their strong partnerships and networking relationships with industry stakeholders, other government agencies, non-government organizations, research scientist, and the scientific community, the Nutrient Management Specialist has a key responsibility in the development of the strategic and operational planning documents for the Division and the Department regarding Nutrient Management. This specialist plays an essential role in the development, implementation and evaluation

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Classification: Public



of programming and initiatives regarding the Efficiency, Utilization, Policy Development and Extension of Nutrient Management information.

In depth knowledge is needed over wide range of technical areas as well as communication, project management and personnel skills. Interaction with managers and technical specialists in government and industry is needed to develop programs and procure external funding. Teamwork skills are needed to lead and participate in multi-disciplinary and cross-ministry teams. Issues from local to international in scope are dealt with through key contacts across a variety of local, national and international of institutions.

Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

1. **Provide leadership and technical expertise on manure management and technology, to the development of ARD's strategic direction to support the sustainable and competitive growth and development of the agricultural sector in Alberta.**

Activities:

Liaison and build collaborative relationships with internal and external stakeholders and industry to identify and prioritize issues and opportunities relating to nutrient management ensuring a linkage with Department and Division planning strategies and initiatives.

Build and contribute to unit, branch, divisional and department teams to achieve the department's operational plans and outcomes.

Participate in provincial, regional, national and international committees to ensure that Alberta's needs on nutrient management are represented.

2. **Integrate, develop and create technical information to support Alberta's policies and regulations governing manure and livestock management.**

Activities:

Provides Nutrient Management technical expertise to the development of policy issues and opportunities related to nutrient management.

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Provides technical expertise to assist ARD and policy makers in reviewing, updating and managing regulations, which govern environmental livestock management, supporting the development of reliable science-based regulation.

Provide support and training to department specialists, Natural Resources Conservation Board (NRCB), industry service providers (e.g. custom manure applicators) and other government and non-government agencies on nutrient management practices to meet regulatory commitments and enhance public confidence in environmental stewardship within the agriculture sector.

3. Develop, review and support technical training and educational programs that achieve the outcomes identified in the ESD operational plan.

Activities:

Develop strategies that address resource and competitiveness issues and needs in Alberta, increasing the efficient utilization of manure nutrients by livestock and crop producers.

Develop an effective provincial extension and training program in collaboration with industry to increase the number of hectares to which manure is applied and to increase the capture of nutrients from liquid manure application.

Develop, support and collaborate with other government agencies, industry, producer groups and NGO's on the development and implementation of training programs to increase the economic advantage gained through improved nutrient management procedures and practices.

4. Adapt and develop manure nutrient management decision making tools, technologies and resources that support the ESD operational plan.

Activities:

Collaborate with industry, educational institutes, and provincial, national and international agencies to create, adapt and design tools, resources and practices that will take advantage of economic opportunities created from manure production and management.

Cooperatively, with partnering agencies, design and develop technical training resources that will provide industry service providers and producers with the materials to make profitable and sustainable manure and nutrient management decisions that enhance the capture of nutrients applied through manure and address the barriers limiting wider distribution and the use of manure as a nutrient source.

Develop and enhance manure and nutrient management decision-making resources that assist industry in creating a value for manure and facilitate the trade and transport manure more cost effectively.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

This position maintains an ongoing dialogue, through a network of scientists, technical specialists, leaders from industry and environmental groups, to ensure that AF is aware of issues, trends and potential opportunities affecting livestock production and nutrient management.

This position has an integral role in developing the departments' nutrient management initiatives and operational plans.

This individual collaborates with industry, government and non-government stakeholders to identify and prioritize manure and nutrient management needs and projects.

This position advises and provides technical information to the department and Minister on strategies, regulations and standards related to manure and nutrient management.

This position liaises with government (regional, provincial and federal), institutions (university and college), industry and non-government stakeholders (Agri-Environmental Partnership), and through leadership and communication encourages partners to work collaboratively, share resources and develop strategies that address nutrient management issues and opportunities.

This position collaborates with industry, non-government agencies, educational institutions, research organizations and producers to integrate and coordinate nutrient management research and educational programs.

This position interacts with a variety of specialists across the ministry, from different disciplines related to manure management such as engineers, animal nutritionists, and economists.

This individual will use strategic thinking, creativity, originality and critical thinking to address manure management issues, in planning programs and in the implementation of strategic initiatives.

This position builds and maintains national and international partnerships, such as the Tri-Provincial Partnership, that cooperatively develop educational, research and technology development initiatives that will achieve ARD's outcomes. This position provides leadership in areas of nutrient management within the entire province.

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

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Education and Experience:

Minimum of a Bachelor of Science in Agriculture with at least 5 years experience in soil science, nutrient management, livestock production or production agronomy.

Experience in technology transfer and the development of adult educational programs; to plan and design extension and training programs that facilitate knowledge transfer and promote practice change.

Experience of agronomic research, soil fertility, soil chemistry, nutrient cycling, agricultural field plot design, livestock management and statistical methods.

Practical experience with Alberta's crop and livestock industry and a solid understanding of the opportunities and challenges it faces.

Considerable experience in building and working in a team environment.

Knowledge:

A strong understanding of the agriculture industry, current practices and the environmental and social-economic issues, from local to international, that the industry faces in terms of land, soil, water, air and bio-diversity.

Knowledge of agronomic production techniques, soil fertility, nutrient and manure management, crop rotations and crop management practices in the various ecological areas of the prairies under both irrigated and dry land conditions.

Knowledge of beneficial manure management practices and livestock production management for a broad range of livestock types and an understanding of soil biological processes and environmental issues related to manure nutrient management.

Knowledge and experience in plant nutrition, manure management, and the development of nutrient management plans at scales ranging from individual fields to whole farms.

Knowledgeable of the legislation governing and relating to manure management and livestock production.

Knowledge of scientific theories, principles, research methodologies, experimental design and data interpretation.

Experience in the initiation, implementation, design and data collection for research, applied research and demonstration projects and programs.

Knowledge and training in computer statistical software, database management systems and decision support systems.

Skills and Abilities:

The ability to build, lead, supervise and work with multi-disciplinary, cross-ministry teams.

Excellent leadership, communication and public relations skills are required for dealing with a wide range of stakeholders and clients.

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Strong interpersonal and communication skills, to provide and target technical information to technical and non-technical audiences (researchers, industry and producers).

Have analytical and problem solving skills, to be capable of strategic thinking to solve complex problems using a systems approach.

Effective presentation and public speaking skills.

A strong knowledge of project management techniques, with strong organizational, planning and management skills.

To be proactive, dynamic, flexible and responsive to change within the department and industry.

The ability to balance political decisions and scientific facts and to identify opportunities for work or project integration to ensure efficient use of Ministry resources.

Strong computer skills to facilitate data management, analysis, report development and communication.

Human Relations Skills:

Strong communication skills and the ability to effectively supervise, coach, train and evaluate the performance of staff with a range of backgrounds.

Strong and effective conflict management skills and the ability to deal positively with conflict.

Exceptional team building, facilitation, partnering and networking skills are required to bring together a broad range of stakeholders from various disciplines to develop and implement integrated, practical manure management programs.

Other:

Eligibility for membership in Alberta Institute of Agrologists.

A valid class 5 driver's license.

Contacts

(Main contacts of this position and the purpose of those contacts.)

Section Lead, Nutrient Management Section. – Supervisor for administration and operational processes for this position.

Staff within the Nutrient Management Section, to provide technical support.

Staff within the Agri-Environmental Management Branch and Technology and Innovation Branch.

Cross Ministry Specialists – Water/GIS/Economics/Policy/Ag Research/Business Development/ Rural Development/Extension.

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Universities and research institutions.

Ag Canada.

RT linkages.

Tri provincial Manure Management Council.

Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

N/A

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Last Review / Update: 2016-03-11

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Opted out and Excluded Benchmark Evaluation - 522AG11

Identification Section

Working Title:	Rangeland Agrologist
Department:	Environment and Parks
Division, Branch/Unit:	Lands Division, Prairies Area/Lands Program
Reports To:	Assistant Rangeland Manager
Levels to D.M.:	5
Job Description:	522AG11
MRS:	See the Minimum Recruitment Standard for Agrologist
Job Code:	522AG - Agrologist Level 2

[Organization Chart](#)

(requires login)

Comments on Role

The Rangeland Agrologist oversees the agricultural public land base within an assigned district to ensure and improve the long-term sustainability of the resources by maintaining a balance of development, use and conservation. Position delivers extension services to clients to meet needs on all aspects of public rangeland management and sustainable use. Position also has authority to decide on the allocation of public land for agricultural uses through consultation with stakeholders and other agencies and facilitates the integration of other uses on rangeland.

Comments on Evaluation

- **Knowledge:**

Evaluation Knowledge
E+I2 230
↓
Creativity/Problem Solving
33% 76
↓
Responsibility
B 76
↓
TOTAL JOB POINTS
382

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Content:

- **E+:** Requires an in-depth understanding of land reclamation principles and practices, multiple natural science disciplines, resource administration and land management issues. Requires knowledge of several relevant Acts (Public Lands Act, Water Act, etc.) and regulations, knowledge of real estate appraisal and land development techniques, knowledge of contract management and skills in negotiation, consensus building and conflict resolution. The breadth of knowledge it requires is extremely broad and is acquired through the completion of an undergraduate degree in Agriculture. The position must have a working knowledge of all activities that occur on public land and the impact various activities may have on other areas. The requirement to have extensive knowledge of many different areas relating to public lands further increases the need for the position to apply in-depth knowledge acquired through formal education and varied experience. The requirement is coupled with knowledge of land use issues and challenges in the district. This position is an E+ in recognition of the wide scope of work and the requirement to apply a wealth of knowledge and integration. An E position is narrower and is not solely looked upon for expertise on many different issues. This position covers a geographic land base and is looked to for expertise, leadership and analysis regarding public lands.

Complexity and Diversity:

- **I:** The position provides expert advice to a wide variety of stakeholders in public lands within the district. Although the work completed falls within legislation, regulations, policies and directives, the position is able to independently choose how the work is done and what the outcomes will be within the given parameters. The Rangeland Agrologist works co-operatively with staff, partners and clients in a self-directed work unit. The position is authorized to make decisions within legislation that directly affect public lands within the district as such they must have a solid understanding of the work of other program areas and any potential impacts their decisions may have. The position is ranked an I for Complexity and Diversity and not an I+ because the position does not manage operations.

Human Relations Skills:

- **2:** The position persuades and influences behaviour on a regular basis, delivering extension services, providing analysis, and making decisions based on the analyses conducted. Position mediates disputes between clients to resolve issues over conflicting activities and makes recommendations based on sound land management practices. Position also chairs and participates on committees to develop local and regional land management plans. Mediation of client and public disputes is an aspect of the work, but typically short-term. This is congruent with the definition of Human Resource Skills at the 2 level.
- **Creativity/Problem Solving:**

33%: Responsibilities focus on analyzing, deciding, consulting and managing and are completed by drawing from within the theoretical and practical body of knowledge and experience that the position holds. The position exercises creativity in balancing development, use and conservation of public lands. The scope of the work is wide, and the position is required to complete many different tasks and duties, but the solutions are all found within the body of knowledge, legislation, regulations and precedents. The evaluations are completed using legislation and past practices as guidelines and aids. Position is one of several Rangeland Agrologists within the province and is not viewed as scoring 38% in this sub-factor as work focus is not on development of new procedures and policies. Position is stronger than 29% as problems are not standard; creative solutions are required to balance complex challenges of development, use and conservation of resources.

▪ **Responsibility:**

B: Position's purpose is to oversee the agricultural public land base to ensure and improve the long term sustainability of the resources. Position is authorized to decide on the allocation of public land for agricultural uses. This is normally completed through consultation with stakeholders and other agencies, but if agreement cannot be reached, this position can make final decisions regarding the usage of public land, supporting a rating of "B"; providing consultation and advice for decisions that have a major impact on interested stakeholders of public lands.

Last Reviewed: November, 2009

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Last Review / Update: 2016-03-11

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Opted Out and Excluded Benchmark Job Description - 522AG11

Identification Section

Working Title:	Rangeland Agrologist
Department:	Environment and Parks
Division, Branch/Unit:	Lands Division, Prairies Area/Lands Program
Reports To:	Assistant Rangeland Manager
Levels to D.M.:	5

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

The Rangeland Agrologist oversees the agricultural public land base, primarily within an assigned district, to ensure and improve the long term sustainability of the resources, benefiting Albertans, rangeland users and the agricultural industry by maintaining a balance of development, use and conservation. This position has the authority to decide on the allocation of public land for agricultural uses through consultation with stakeholders and other agencies and facilitates the integration of other uses on rangeland. The agrologist conducts planning to establish integrated uses and approves public rangeland management plans.

Professional scientific expertise is provided to clients, agricultural producers, and other professionals in government and industry on soils, range and riparian health, tame and native ecosystems to achieve rangeland stewardship and sustainability.

The agrologist mediates client and public disputes and generates creative solutions using conflict resolution and de-escalation skills to resolve issues over conflicting activities on public land. Participates on committees that identify issues and problems to formulate new land management policies that are provincial in scope and add to organizational goals.

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This is a complex position that requires advanced professional skills, an extensive knowledge base in a number of disciplines as well as an in-depth knowledge of all activities that occur on public land in order to evaluate the land, analyze impacts and make integrated land use decisions.

Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

- 1. Deliver extension services through state of the art technical transfer to clients within the framework of legislation, regulations, policies and directives in SRD in order to meet client needs on all aspects of public rangeland management and sustainable use.**

Activities:

Deliver technology transfer individually or through partnerships by way of workshops, publications and individual client contact as well as to local governments to increase knowledge and enhance skills in specified areas affecting rangeland resources. Examples: riparian and range health assessment, public access, Stockman's Course.

Provide technical information and advice to clients and the public on land management practices to ensure sustainable production, conservation and reclamation (for example tame species, weed control, land development after logging, natural recovery).

Participate and partner in research projects to improve conservation and reclamation, and agricultural land practices. Examples: range recovery after drought, native range production and recovery.

Partner with Range Management Specialist on field-testing new assessment techniques.

Participate on Departmental and external teams and committees as a resource person.

Mediate client and public disputes using conflict resolution, de-escalation skills, principled negotiation, and consensus based decision-making techniques. Using input from the Farmers Advocate or Ombudsmen to resolve issues over conflicting activities/uses of public rangeland, address concerns to encourage the continued use of sound rangeland management practices. Disputes tend to be emotionally charged at the onset and must be de-escalated prior to achieving resolution. Examples: access on grazing lease, logging on grazing lease, fence line disputes and compensation for damages, Sec. 109 (Grazing Association Membership) appeals.

2. Provide input into public rangeland management and operational policy and program development within the policies and directives of SRD to ensure regional concerns are addressed.

Activities:

Identify and recognize strategic issues that require policy formulation and forward the issues to the Rangeland Management Branch and/or the Area's Land and Range Manager.

Participate on committees to formulate and develop policies and procedures that are provincial in scope or are focused on regional land use issues.

Reviews draft policies and provide direct input to Rangeland Management Branch or the Area Land and Range Manager.

3. Directs and administer rangeland dispositions and activities within the legislation, regulations, policies and directives in SRD to provide benefits to rangeland users while ensuring that the quality of land is sustained.

Activities:

Evaluate rangeland dispositions. (Examples: grazing leases, forest grazing licenses, grazing reserves and grazing permits, farm development permits, cultivation permits, hay permits and agricultural uses on Natural Areas or Heritage Rangelands) to ensure fulfillment of regulations, disposition conditions and to evaluate land stewardship, land conservation and reclamation. Communicate with the activity holder regarding deficiencies and required action.

Act as a liaison between agricultural disposition holders and forest companies, encourage and support implementation grazing and timber integration, and respond to disputes between agricultural disposition holders and timber disposition holders. Make decisions to issue, renew, cancel or take enforcement actions on dispositions based on field inspections, interviews with disposition holders and fulfillment of expected land stewardship principles.

Assess public rangeland to determine riparian and rangeland health and condition, forage production, grazing and carrying capacity.

Participate with Agricultural Development Committees on all agricultural appeals of enforcement actions.

Authorize temporary activities on public rangeland (i.e. stock watering system, spraying weeds).

Assist on grazing reserve issues as it relates to rangeland management, access, oil and gas development and act as a liaison between various land users and the grazing association.

Work with the agricultural disposition holder to implement rangeland management practices on grazing dispositions and develop practices that improve range health (rotation, cross fencing, water, salt, stocking rates, distribution).

Develop and implement rangeland management plans jointly with clients and Resource Managers.

Promote the sustainability of the range by minimizing the long term impact (footprint).

Make decisions on emergency requests for grazing (subletting, Head Tax Permits).

Implement the Compliance and Enforcement Framework to address non-compliance activities, and make decisions and recommendations with regards to decreased tenure or cancellation, or fines and penalties.

Carry out ecological assessments on grazing leases in support of Business Measures audit process.

Implement grazing in protected areas through the Memorandum of Understanding with Tourism, Parks and Recreation.

4. Evaluate land within the current policies, directives and procedures to determine the highest and best sustainable use of public land.

Activities:

Evaluate public land to determine agricultural capability or sale.

Appraise land to determine market value.

5. Make integrated decisions within the current legislation, regulations, policies and directives from SRD to facilitate a balance of sustainable land uses.

Activities:

Examine various conflicting land use requests, evaluate and construct solutions to balance them on the landscape (for example finding a balance between grazing, oil and gas development, forest production).

Co-ordinate referrals to and consult with other resource managers, local governments and stakeholders to make integrated land use decisions, which unifies multiple use objectives.

Provide conflict resolution for competing or conflicting land uses. Example: consensus based decision-making and co-ordinated resource administration.

Place and administer reservations such as protective and consultative notations to address rangeland management and development concerns.

Conduct planning to establish agricultural uses and approves management plans on agricultural public lands. •

Collaborate to develop local and regional land management plans (Heritage Rangeland Management Plans for example).

Approve land exchange agreements to the mutual benefit of the government and the client.

Allocate land by conducting auctions, initiating tenders and recommending priority issuance.

Develop Recreational Access Management Plans to facilitate reasonable recreational access on agricultural public land.

6. Oversees and administer vacant public land within existing legislation, regulations, policies and directives from SRD to provide a balance of development, use and conservation while maintaining biodiversity.

Activities:

Initiate and place notations relative to rangeland interests.

Investigate unauthorized agricultural use of bed and shore and recommend appropriate actions and penalties. Coordinate with Environment and Federal Department of Fisheries and Oceans for possible joint enforcement under the Public Lands Act and Water Act.

Investigate unauthorized agricultural use of public land and recommend appropriate action or penalties.

Identify, evaluate and select appropriate remedial action for weed control and reclamation problems.

Issue and administers contracts for weed control and reclamation projects.

7. Ensure ministry resources are handled efficiently and effectively.

Activities:

Continually improve quality of products and services provided to clients.

Employ new and innovative electronic and communication technology to provide quality client service.

Maintain leading-edge knowledge of the latest technology through conferences, courses, seminars, and literature and publication reviews.

Sustain professional competency through membership in appropriate professional associations.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

Within the assigned district, the Rangeland Agrologist is responsible for the agricultural public lands in a designated area and the integration of associated activities on that land base. The agrologist leads the development and transfer of information on stewardship, sustainable use and integrated natural resource and livestock practices to the client base for all

aspects of public rangeland management. The agrologist presents the information developed to client groups and individuals by way of tours, public meetings, presentations at conferences or meetings and one to one client contact.

The agrologist works co-operatively with staff, partners and clients in a self-directed work unit. The Agrologist handles politically sensitive issues, which require effective communication with the local MLA's, Area Managers, Program Directors and affected clients. This includes preparing detailed information to be incorporated into briefing and advisory notes or providing a heads up on potentially volatile issues from the field. The agrologist acts as a resource person on issues occurring in the Area as well as for other Branches, Divisions and Departments.

Rangeland management is broadly guided by four statutes and their associated regulations; The Public Lands Act, The Forest Reserves Act, The Environmental Protection and Enhancement Act, The Forest Protection Act and, to a lesser degree, The Water Act. Due to the diversity of activities, clients, stakeholders and the continual evolution of resource administration objectives, policies and procedures guide operational direction. These policies provide the framework for land use decisions and impact stakeholders at all levels. The Agrologist identifies emerging policy issues, provides input into policy review and formation and participates on committees and teams as a representative of the regional or provincial field staff to develop policies concerning rangeland and agricultural activity.

The Rangeland Agrologist is actively involved, either as the chair, a team member or as a professional consultant, in the development and implementation of plans. Plans may be at a regional scale or a local scale, and may be cross-ministry or include other government agencies. The agrologist will also work with clients and resource agencies to prepare integrated resource administration plans, grazing timber agreements, riparian conservation initiatives and recreational access management plans for individual dispositions within the district.

Conflicts over land use arise on a regular basis due to the wide variety of potential uses and stakeholders. The Agrologist requires advanced skills in mediation and conflict resolution, such as principled negotiation and co-ordinated resource administration to de-escalate the conflict and make sound land use decisions. Problems are often unique and solutions are not always known, as a result, creativity and a broad knowledge base is required to bring participants to a decision. Solutions are found using an extensive body of knowledge and the experience gained through the job. Examples: range and riparian area management, soil science, geology, geomorphology, forestry, archaeology, geophysical operations, surface materials development, land appraisal techniques, human resource skills, negotiation and mediation skills, investigative skills, computer skills, construction and reclamation techniques, analytical skills, endangered species and general wildlife advice.

Agricultural public land provides a valuable source of surface and subsurface resources for which there is strong demand and competition. The Rangeland agrologist participates in integrated decisions in consultation with Resource Managers and considers land capability and suitability, compatibility with other uses, local and regional plans, departmental regulations, policies and guidelines, stakeholder concerns, and local politics and issues. The agrologist must have an in depth knowledge of all activities that occur on public land and the impact various activities may have on other uses. Creative solutions are required to balance complex challenges of development, use and conservation of the resources. Land use decisions are made by using a team approach in compiling, interpreting, understanding and applying information gathered from a wide variety of stakeholders and disciplines. The decisions may have a significant impact on the resources when development or utilization is approved and on the client by facilitating or denying opportunities to develop and utilize a particular resource.

A number of stakeholder or client groups may be involved in, or impacted by policies of the Department and by the decision making process. Local Stakeholders and clients include resource agencies (Fisheries, Wildlife, Forestry, Water Management, Historical Resources, and Parks and Protected Areas), individual clients (agricultural producers, oil and gas companies, geophysical companies, sand and gravel operators, peat mining companies, quarry operators, and recreational users), special interest groups (fish and game clubs, volunteer stewards, conservation groups, recreational clubs), political (town councils and mayors, county councillors and reeves, MLA's) municipalities, members of the general public, and other government agencies (Transportation, Energy, Parks).

Major Stakeholder groups include the Rocky Mountain Forest Range Association, Alberta Grazing Lease Holders Association, Alberta Grazing Association, Alberta Fish & Game Association, Alberta Wilderness Association, Canadian Association of Petroleum Producers, Canadian Association of Geophysical Contractors, Federation of Alberta Naturalists, Western Stock Growers Association, Alberta Conservation Association, Ducks Unlimited, Alberta Beef Producers, Western Stock Growers Association and several Forest companies (i.e. Weyerhaeuser, Ainsworth, Canfor).

Public lands are used in a wide variety of ways from low impact activities such as hiking and bird watching to very intensive activities such as surface materials mining and geophysical programs. Uses include agricultural (grazing, haying and cultivation), industrial (oil and gas exploration, oil and gas development and transmission, mines and electrical transmission lines), commercial (sand, gravel, peat, tourism and quarries), watershed, wildlife habitat, recreational (campgrounds, agricultural society areas, gun ranges, trail networks, natural areas, hunting, fishing, berry picking) and residential. Generally two or more of these activities will be occurring simultaneously on any given parcel of public land which requires the Agrologist to have an integrated, multidisciplinary approach in developing and delivering information to the client to assist them.

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

Knowledge:

Bachelor of Science Degree in Agriculture or equivalent is required.

Professional Agrologist (P. Ag.) or eligible for membership in the Alberta Institute of Agrologists is required as per the Agrologists Act.

Continuing professional development is registered with the Alberta Institute of Agrologists and is required to maintain membership.

In depth knowledge and understanding in natural sciences such as soil science, range management, plant science, animal science, range health, range inventory, riparian management, watershed management, forage production, physical geography and forest ecology.

Thorough knowledge of resource administration such as timber, endangered species advice, fish and wildlife habitat, and water.

In depth knowledge of land reclamation principles and practices and use of native seed.

Sound knowledge of the Public Lands Act, Forest Reserves Act, Water Act, Environmental Protection and Enhancement Act, The Forest Protection Act, Line Fence Act, Stray Animals Act, Weed Control Act and their associated Regulations.

Thorough knowledge of real estate appraisal principals in order to establish values for land and improvements. Completion of Appraisal Institute of Canada's Appraisal 101 course is required.

Extensive practical knowledge of land development techniques dealing with both the agricultural and industrial fields.

Creativity, flexibility and balancing skills when dealing with a wide range of complex issues.

Comprehensive knowledge of contract administration including project tendering, contract issuance and contract supervision.

Thorough knowledge and understanding of geophysical operations, oil and gas development and production, recreation as well as surface materials development all relative to rangeland management.

Skills and Abilities:

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Advanced skills in mediation, negotiation and conflict resolution to de-escalate conflicts and make sound land use decisions.

Negotiations, consensus building and conflict resolution skills are essential.

Interpersonal relationship knowledge and the ability to motivate clients, partners and interest groups.

Investigative and analytical skills.

Creative ability to solve complex problems is essential when balancing development, conservation and use of resources.

Effective written and verbal communication including public speaking skills.

Ability to lead working groups and to be a team player.

Ability to interpret aerial photography, maps, Soil and Vegetation Inventory Databases.

Computer literacy in a Windows platform including Microsoft Word Suites, Geographic Land Information and Planning System, Land Standing Automated System, Arc View and e-mail.

Strong organizational skills.

Effectively organize time and duties.

Ability to work independently.

Aptitude for independent decision-making.

Orienteering skills (Geographic Positioning System, compass).

Skills in rough terrain driving including 4X4's and off highway vehicles.

Working knowledge of Occupation Health and Safety.

Contacts

(Main contacts of this position and the purpose of those contacts.)

Professional scientific advice is provided to clients, agricultural producers, and other professionals in government and industry on soils, range and riparian health, tame and native ecosystems through workshops, publications, individual client contact, etc. to achieve rangeland stewardship and sustainability. The Agrologist mediates (using conflict resolution and de-escalation skills) client and public disputes regarding issues on public land. The Agrologist handles politically sensitive issues with require effective communication with local MLAs, Area Managers, Program Directors and affected clients.

Local stakeholders and clients include resource agencies (Fish and Wildlife, Forestry, Water, Historical Resources, Parks and Protected Areas, etc.) individual clients, special interest groups, (fish and game clubs, conservation groups, etc.), political contacts (town councils and mayors, county councillors, Reeves, MLAs), agricultural stakeholder groups (Alberta Grazing Leaseholders Association, Alberta Beef Producers, Rocky Mountain Forest Reserve Association, etc.) and members of the general public.

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Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

The Agrologist supervises wage and/or project staff (such as Riparian Agrologists) who are generally classified as Agrologist 1.



Last Review / Update: 2016-03-11

Opted out and Excluded Benchmark Evaluation - 521AG04

Identification Section

Working Title: Surface Water Quality Specialist

Department: Agriculture and Forestry

Division, Branch/Unit: Irrigation and Farm Water Division, Water Resources Branch

Reports To: Research Agrologist

Levels to D.M.: 5

Job Description: [521AG04](#)

MRS: See the Minimum Recruitment Standard for [Agrologist](#)

Job Code: [521AG](#) - Agrologist Level 1

[Organization Chart](#)

(requires login)

Comments on Role

The Surface Water Quality Specialist performs professional work that facilitates the growth of the agriculture and food industry, and enhances rural sustainability through environmental stewardship. This position works with other team members to implement applied research and studies that monitor agriculture’s impact on water quality in the irrigated areas of Alberta. The Specialist also provides assistance in the preparation of information packages and to transfer technology knowledge to stakeholders.

Evaluation Knowledge
E-I2 175
↓
Creativity/Problem Solving
29% 50
↓
Responsibility
B 50
↓
TOTAL JOB POINTS
275

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Comments on Evaluation

- **Knowledge:**

- **Content:**

- **E-:** Position requires a University degree in Agriculture, as well as basic knowledge and experience in soil and water chemistry/environmental sciences to provide technical and analytical support on how changes in water quality impact the environment. The Surface Water Quality Specialist plays an assisting role in the development and implementation of research projects and is directed by seasoned professionals on tasks. The position may coordinate the work of field staff and technicians on projects. The position is not considered at the full 'E' level because although the position has input into the analysis of environmental impacts and making recommendations, the responsibility to move initiatives and findings forward lies with the more senior staff. More emphasis is placed on working within the operations of projects, which requires limited theoretical knowledge application for the most part.

- **Complexity and Diversity:**

- **I:** In working as part of a team with internal and external members, the position must understand the scope of research projects, roles and responsibilities of members, as well as the duties of technical staff that the position may direct.

- **Human Relations Skills:**

- **2:** The Surface Water Quality Specialist works with team members and external stakeholders coordinating the work, problem-solving, providing and receiving technical information in plain language. This position is responsible for the co-ordination of work among field staff, laboratory staff, and other involved agencies, and for the supervision of seasonal staff involved in assigned projects.

- **Creativity/Problem Solving:**

29%: Projects are determined by the supervisor and problems that are encountered are within a controlled environment. The position has access to team leaders and other team members for advice and guidance.

- **Responsibility:**

B: Activities involve a combination of research and analysis along with the presentation/exchange of information with stakeholders.

Last Reviewed: November, 2009

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Classification: Public

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Opted Out and Excluded Benchmark Job Description - 521AG04

Identification Section

Working Title:	Surface Water Quality Specialist
Department:	Agriculture and Forestry
Division, Branch/Unit:	Irrigation and Farm Water Division, Water Resources Branch
Reports To:	Research Agrologist
Levels to D.M.:	5

Purpose

(Brief summary of the job, covering the main responsibilities, the framework within which the job has to operate and the main contribution to the organization.)

Reporting to the Head of the Resource Conservation Section, this position works with other team members to implement applied research and monitoring studies on agriculture's impacts on surface water quality in the irrigated areas of Alberta. The Specialist's focus is on professional work that facilitates growth of the agriculture and food industry and enhances rural sustainability through improved environmental stewardship. Other main components of this position are managing and maintaining applied research projects to demonstrate beneficial management practices that will mitigate agriculture's impact on the environment. This position provides assistance in preparation of appropriate information packages and in transfer of technology. This position assists numerous partners in conducting research, monitoring water quality, and measuring water flow. These partners include the Oldman Watershed Council, Alberta Environment, Irrigation Districts, and Agriculture and Agri-Food Canada.

Responsibilities and Activities

(Each end-result/responsibility shows what the job is accountable for, within what framework and what the added value is.)

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1. **Monitor changes in soil and water quality to determine the effects of agricultural production and processing operations on the environment.**

Activities:

Assess the impact of different agricultural practices on surface and groundwater resources in the South Saskatchewan River Basin through monitoring of water flow and quality.

2. **Work with industry groups and research organizations to conduct applied research to evaluate technologies and management practices that will enhance environmentally sustainable agriculture operations.**

Activities:

Assist with implementation and management of projects to assess manure management options that will minimize negative impacts on water, soil and air quality.

Assist with planning, implementation, and management of applied research to determine potential impacts of intensive livestock management on groundwater quality.

Assist with the planning, implementation, and management of projects to develop beneficial management practices that will mitigate the impact of agriculture on the environment.

3. **Work with other agencies, industry groups and researchers to develop and implement environmental phosphorus standards in Alberta.**

Activities:

Monitor phosphorus content of soil and water samples in eight micro-watersheds.

Examine relationships between soil test phosphorus and the phosphorus content of runoff using rainfall simulation equipment.

4. **Support expansion of irrigation to increase opportunities for diversification and growth.**

Activities:

Assist irrigation districts in measuring, recording, and calculating current supply and return flows, aiding in the assessment of future water requirements and operational efficiencies.

5. Information Packaging and Technology Transfer.

Activities:

Assist with preparation of technical reports, journal papers, fact sheets, brochures, and other educational materials to disseminate information on applied research and monitoring studies to increase awareness of water quality issues, and to promote adoption of beneficial management practices.

Assist with preparation and delivery of information for improving surface water quality to producers, agricultural organizations, AAFRD staff, and the general public.

Process, validate, and transfer water flow data to other team members to be combined with water quality data to provide an overview of surface water quality throughout the year and historically with time.

Scope

(Illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.)

This Surface Water Quality Specialist manages applied research, demonstration, and monitoring projects correctly and ensures timely and accurate data collection and analysis. Development and implementation of new and innovative applied research and monitoring techniques to assist with the assessment of agriculture's impact on the environment or the evaluation of the effectiveness of beneficial management practices are important components of this position. This is an independent position, within a team framework, which is responsible for day-to-day decision-making and problem solving. Work is carried out with minimal supervision. The position generally has a regional basis, with some projects being province-wide (e.g. Soil Phosphorus Limits Project).

Knowledge, Skills and Abilities

(Diplomas, degrees and the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others. Specific training if it is an occupational certification/registration required for the job.)

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University graduation in agriculture, environmental science, or related field of study.

Eligible for in-training status with the Alberta Institute of Agrologists.

Knowledge of applied research and monitoring techniques for field, watershed, and provincial surface water quality studies.

Knowledge of soil and environmental science, as well as the contaminant transport processes and agricultural impacts on surface water quality.

Knowledge of laboratory procedures and equipment.

Skill in use of data loggers, automatic water sampling, and flow monitoring equipment.

Skill in use of computers for communication, data collection, word processing, database management, presentation graphics, and the Internet.

Excellent leadership and partnering skills.

Excellent communication skills (technical and plain-language, written and oral).

Strong ability to work effectively as part of a team or independently.

ontacts

(Main contacts of this position and the purpose of those contacts.)

This position works closely with research scientists, professional and technical staff (both in the field and the laboratory) in the Resource Conservation Section, and with other research scientists, professional and technical staff in partner organizations. Partner organizations include Agriculture and Agri-Food Canada, Irrigation Districts, Watershed Groups, and other industry commodity groups.

Supervision Exercised

(List position numbers, class titles, and working titles of positions directly supervised.)

This position is responsible for the co-ordination of work among field staff, laboratory staff, and other involved agencies, and for the supervision of seasonal staff involved in assigned projects.

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