



Ontario Federation of Agriculture

Ontario AgriCentre

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March 27, 2017

The Honourable Reza Moridi
Minister of Research, Innovation and Science
77 Wellesley Street West
12th Floor, Ferguson Block
Toronto, ON
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Dear Minister Moridi:

Re: Recruiting Ontario's First Chief Science Officer

Agriculture is a knowledge industry; based on sophisticated science combined with traditional knowledge. Ongoing scientific research has enabled agricultural productivity growth over the past 200 years to exceed that of all other industries. We continuously use new knowledge to feed Ontario and the world.

Research remains essential to Ontario's future competitiveness. It will provide opportunities for improved seed quality, better genetics, and enhanced stewardship of soil and water. Agriculture will continue to grow and innovate with the help of science and knowledge transfer.

The Ontario Federation of Agriculture (OFA) represents more than 36,000 family farm businesses across Ontario who rely on scientific development and application to thrive. As such, OFA is pleased to provide our perspective on the role of Chief Science Officer.

Generally, we believe the government should embark on a cultural change to better facilitate and capitalize on scientific developments. Improved communication and collaboration across government ministries would result in better research and innovation support for business development under the Ministry of Research, Innovation and Science (MRIS), Ministry of Economic Development and Growth, and Ontario Ministry of Agriculture, Food and Rural Affairs.

As a government committed to evidence-based policy outcomes, establishing a Chief Science Officer role at MRIS is an important step in enhancing coordination of science and innovation initiatives across ministries. We understand that the Chief Science Officer's primary purpose will be to advance science in the province.

Because it is a science-based industry, OFA recommends that MRIS look to agriculture when developing the mandate for the Chief Science Officer. The Chief Veterinarian for Ontario is a good model; demonstrating how science (veterinarian science in this specific case) can be

advanced in the province. The mission of the Chief Veterinarian for Ontario is to provide leadership in preserving and enhancing animal and public health within a strong agri-food sector.¹

OFA is pleased to provide our perspective on the questions posed.

1. What skills and qualifications should the Chief Science Officer have?

To be successful in the role, the candidate must possess a high level of integrity. The Chief Science Officer (CSO) must provide a trusted source of credible scientific knowledge and evidence. The office must have strong collaborative links to the scientific community. In addition, the CSO must also be able to independently collect, understand, and interpret an immense array of scientific research findings. The office must have the ability to critically evaluate findings in an unbiased and independent manner, and determine which evidence would most appropriately inform public policy.

In addition to a graduate level science degree (ideally broad-based), the candidate must also possess strong communication skills. The CSO must demonstrate an awareness of the public perception challenges that science and technology face in the era of social media (e.g. modern farming practices). A strong ability to speak to the public and the media about science in plain, clear and convincing language will be crucial.

2. How should the Chief Science Officer work with the public and science, research and innovation-based organizations?

We understand that the Chief Science Officer will be a senior executive advising the Ministry of Research, Innovation and Science, as well as other areas of government on research and science matters. As mentioned on the government website, the CSO is to work for and with Ontario's research communities to:

- champion high quality science in government and education;
- help the government make decisions that are informed by science-based policy issues;
- advise the government on how to support future research and innovation projects;
- publicly promote Ontario as a hub for research across Canada and the world by attracting global research talent; and
- lay the groundwork for the next generation of research and innovation jobs by defining the best science strategy for the province.

OFA agrees with these objectives and strongly suggests that, to be successful, significant outreach will be required. Therefore, the Chief Science Officer should:

- Develop a cross-ministerial approach to coordinate the actions of many ministries;
- Build international relationships, particularly with countries that have similar economies and science-related challenges;
- Assist in the communication of important developments in science and innovation, contributing to public understanding; and
- Collaborate with the Government of Canada's new Chief Science Advisor upon that appointment.
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¹ More information on the Chief Veterinarian for Ontario's mandate is available at: http://www.omafra.gov.on.ca/english/food/inspection/ocvo_index.html

Be Proactive and Results-Driven:

- Conduct early identification of issues requiring scientific evidence, particularly for issues where the public opinion may be vulnerable to “bad science”;
- Develop a process for other ministries to identify potential research needs in a proactive, instead of reactive, way;
- Coordinate initiatives across Ontario’s numerous research facilities (including our exceptional agriculture and food institutions) to advance our research capabilities; and
- Ensure effective knowledge translation and transfer of research innovation to enhance economic development through new technologies and services.

Approach Issues Holistically:

- Ensure robust scientific evidence informs public policy makers;
- Draw on expert advice in a range of fields;
- Recognize when challenges are outside of the expertise of in-house staff; and
- Ensure scientists, advisors, and policy makers are clear on what advice is being sought and why, and identify the roles of experts clearly.

Establish Science Advisory Committees:

- Industry committees can identify emerging issues and assemble topic experts;
- Committees act as a linkage across ministries to encourage information sharing and alignment of multi-disciplinary issues;
- Committees can provide scientific advice to government departments on a specific issue (e.g. GMOs); and
- Committees can ensure that departments have the capacity to provide scientific expertise or use their networks to reach external experts.

Inform the Public:

- Promote the public understanding of science, particularly related to topics that are often misinterpreted and misrepresented (e.g. role of genetics and technology in food production);
- Ensure evidence of differing perspectives is appropriately weighted when communicated to enhance public trust and understanding;
- Acknowledge the level of uncertainty inherent in science and be transparent; and
- Give scientific experts a leading role in explaining the evidence.

3. What priority areas of research and innovation should the Chief Science Officer focus on first?

- Technological and scientific advancements in agriculture and food production;
- Climate change and energy efficiency;
- Food literacy and social license (public trust in agricultural practices); and
- Rural renewal and innovation.

4. Is there anything else you think we should consider as we look for a Chief Science Officer?

The agri-food sector is the powerhouse of the Ontario economy. At the sector’s core, Ontario farmers are environmental stewards with innovative entrepreneurial spirit. Building farm sector

performance is contingent on agricultural research developing new technologies to enable farmers and agri-food companies to adapt to changing environmental conditions and consumer demands while being more protective of the environment.

OFA fully supports the renewed emphasis on science in public policy decision-making. The adoption of innovative scientific advancements and technologies will improve the adaptability, efficiency, and productivity of agriculture in Ontario.

Ideally, the Chief Science Officer will provide a trusted source of information about scientific developments, and help the public understand the invaluable role of science in our society. Maintaining public trust is key. Therefore, the Chief Science Officer's role should be limited to providing scientific evidence to inform public policy, rather than to championing or establishing specific public policies.

The Chief Science Officer should not be put into the position of speaking to science they know little about, because it falls outside their own personal scientific realm of expertise. The position should promote the philosophy and use of science, rather than the science itself.

OFA appreciates the opportunity to provide these comments. We look forward to seeing our recommendations reflected in the outcome of your consultation.

Sincerely,



Keith Currie
President

cc: OFA Board of Directors