CANADA FOOD INSPECTION AGENCY

10-YEAR REVIEW OF CANADA'S PLANT BREEDERS' RIGHTS ACT

Executive Summary

Introduction And Purpose Of Report

Canada's *Plant Breeders' Rights Act* (PBR Act) came into force on August 1, 1990. As a requirement of the Act, a report was to be prepared and submitted to Parliament with respect to its administration, as soon as practical after the first ten years. This summary and the attached report are submitted for the purpose of fulfilling this requirement.

The objective of this current review of the Act is:

> *"To determine whether the PBR system has accomplished the intended results as set out in the PBR Act"*

The intended results cross a wide spectrum of horticultural, agricultural, financial, intellectual property, quality assurance, industrial development, social, and ethical issues.

The PBR Act defines specific results to be measured and assessed. This report addressed the extent to which the operation of this Act:

a. resulted in:

   i. stimulation of investment in businesses involving the breeding of plant varieties in respect to the protection afforded by the Act;
   ii. any improvement in facilities to obtain foreign varieties of plants in the interests of agriculture in Canada;
   iii. protection abroad, for commercial purposes, of Canadian plant varieties;
   iv. improvements of plant varieties to the public benefit, and particularly to the benefit of farmers and nurserymen; and,
   v. any other public advantage.
   vi.

b. has some but not all of the results described in paragraph (a), above

c. has all or any of those results but is, in any respect, not in the public interest, or

d. is, in the total absence of those results, not in the public interest.

In summary, the objective of this review was to determine the extent to which the *Plant Breeders' Rights Act* and Regulations achieved the intended results over the 10-year review period, 1990-2000.

Methodology

The central focus of the methodology was an extensive consultation process with stakeholders from all aspects of the horticulture and agriculture industry: plant breeders, researchers, seed trade, farmers, nurserymen, industry organizations, and government agencies. Consumer and social advocacy groups were also contacted, and a web page was established seeking input from interested parties.

In the course of the consultations, approximately 76 in-person and telephone interviews were completed. Of these, 50% were with representatives of the horticulture industry (fruits, vegetables, and ornamentals which include flowers, trees, and shrubs), 40% were with representatives of the agriculture industry (grains, oilseeds and pulse crops), and 10% were of a general nature (consumer, social advocacy groups, and others).

A second major aspect of the study was the extensive review of Canadian Food Inspection Agency (CFIA) documents and other secondary research including the annual reports of industry associations, independent studies, and internet searches. Industry consultations and secondary research provided the base information for the development of industry profiles and the assessment of the achievements of intended results under the Act.

An important part of the review was two surveys conducted independently by the Canadian Seed Trade Association (CSTA) of its membership. The first survey was conducted in 1990 and the second in early 2001. The two surveys captured the changes in investment and related information provided by CSTA members during the 10-year review period.

The Findings

A decade after the *Plant Breeders' Rights Act* was enacted, it is generally accepted by the industry, researchers and government, that the scientific and economic well-being of the horticulture and agriculture seed industries has improved. There have been improvements in the yields and quality of many crops and an expansion of the area under production. Farmers and nurserymen definitely have greater access to more and better varieties. In addition, some sub-sectors of the horticulture and agriculture industries have enhanced their export capability, or have become net exporters of products; namely the floriculture, nursery, potato, and pulse industries. These changes, particularly within the horticulture sector and with respect to pulse crops, have been directly impacted by the PBR Act.

There has been an increase in investment in plant breeding, research infrastructure, and technologies in most sectors of the industries evaluated. This is evident through the member survey conducted by the CSTA and anecdotal evidence obtained about the horticulture industry. There has also been investment in secondary and tertiary processing, input suppliers and retailing, which has contributed to rural development. PBR is felt to have had an indirect impact on the industry growth of many crop kinds, and an important direct impact for ornamentals and pulses.

The private sector in both the horticulture and agriculture industries has increased its investment by almost three-fold since the passage of the legislation. At the same time, the public sector has also benefited as universities and Agriculture and Agri-Food Canada (AAFC) have received royalties from private organizations to help fund their plant breeding programs. For example, about $2.9 million per year in royalties is collected by seed growers through sales from one organization and is reinvested into the AAFC research stations. In addition, there are numerous other agreements and initiatives that have seed companies, universities, colleges and AAFC reinvesting in and providing a positive financial contribution to research investment.

Of all the areas evaluated, the PBR Act appears to have had the most significant impacts on securing access to foreign varieties. Virtually every industry sector was unanimous in their support for the importance of the PBR Act in enabling them to develop partnerships, links, and to improve their access to foreign varieties as a result of the legislation.

The influence of the PBR Act has not been as significant in the area of securing protection abroad for Canadian plant varieties. This has not been a major area of focus for agriculture and horticulture over the period reviewed. While there has not been as much of a focus on securing protection abroad for Canadian plant varieties as there has been for obtaining varieties to be used domestically, there has been a number of important developments, specifically in the agriculture industry. One multinational firm has made Canada the base for their global mandate in canola plant development, while another has used Canada as the base for pulse variety testing.

There is no doubt that producers now have access to a much wider selection of varieties now than in the past. While it is difficult to attach a high level of significance on the introduction of the PBR Act, the rate of varietal development and availability of new varieties in Canada has

increased faster over the past 10 years, than ever before. On final analysis, the PBR Act appears to be one factor, of many, that has had a positive impact on the availability of improved varieties.

Other factors and evidence resulting from the review that impact the public interest include the following:

- Producers perceive they bear a substantial portion of the cost of intellectual property rights through increased seed/plant material costs, royalties, and variety trial costs.

- Seed costs in the cereal and oilseed industry actually increased at a slower rate between 1990 and 1999 (8.6%) than they did between 1980 and 1990 (24%) (Statistics Canada Table 328-0001-Farm Input Price Index).

- The protection offered under the PBR Act legislation has encouraged increased research and licensing arrangements, allowing the breeding community to share information and genetic material.

- The fact that not a single compulsory licensing action has been taken, or even applied for, suggests that the industry is acting responsibly by ensuring good quality varieties are widely available to the public at reasonable prices.

- As suggested by the industry and cited herein, there is support for Parliament to update the PBR Act to meet the evolving needs of the industry. The absence of some key elements embodied in the 1991 International Union for the Protection of New Varieties of Plants (UPOV) Convention is placing Canada at a competitive disadvantage. Trading partners including the U.S., U.K., Germany, and the Netherlands have all ratified the 1991 UPOV Convention. And, as additional countries join UPOV, countries such as Canada that continue to adhere to the 1978 UPOV Convention, will increasingly be in the minority.

Before and during the introduction of the PBR Act in Canada, the primary criticisms were as follows:

- there would be potential adverse impact on seed costs;

- multinational companies would eventually dominate the seed industry;

- there would be a reduction in public plant breeding;

- there would be restrictions on the industry access to germplasm; and,

- there would be a reduction in the number of varieties available to farmers and nurserymen.

The results from this review indicate that these potentially negative impacts have not occurred. The fact that these events did not occur as anticipated, has muted the concerns of many of the original critics of the legislation.

Considerable effort was undertaken to make contact with all parties having an interest in the PBR Act and Regulations. Repeated contact was made to ensure responses represented a cross-section of industry sectors and sub-sectors. A number of advocacy groups with major concerns at the commencement of the PBR Act did not respond, which would again suggest that initial concerns with the PBR Act and Regulations, did not materialize.

Full Review available at http://www.inspection.gc.ca/english/plaveg/pbrpov/10yre.shtml