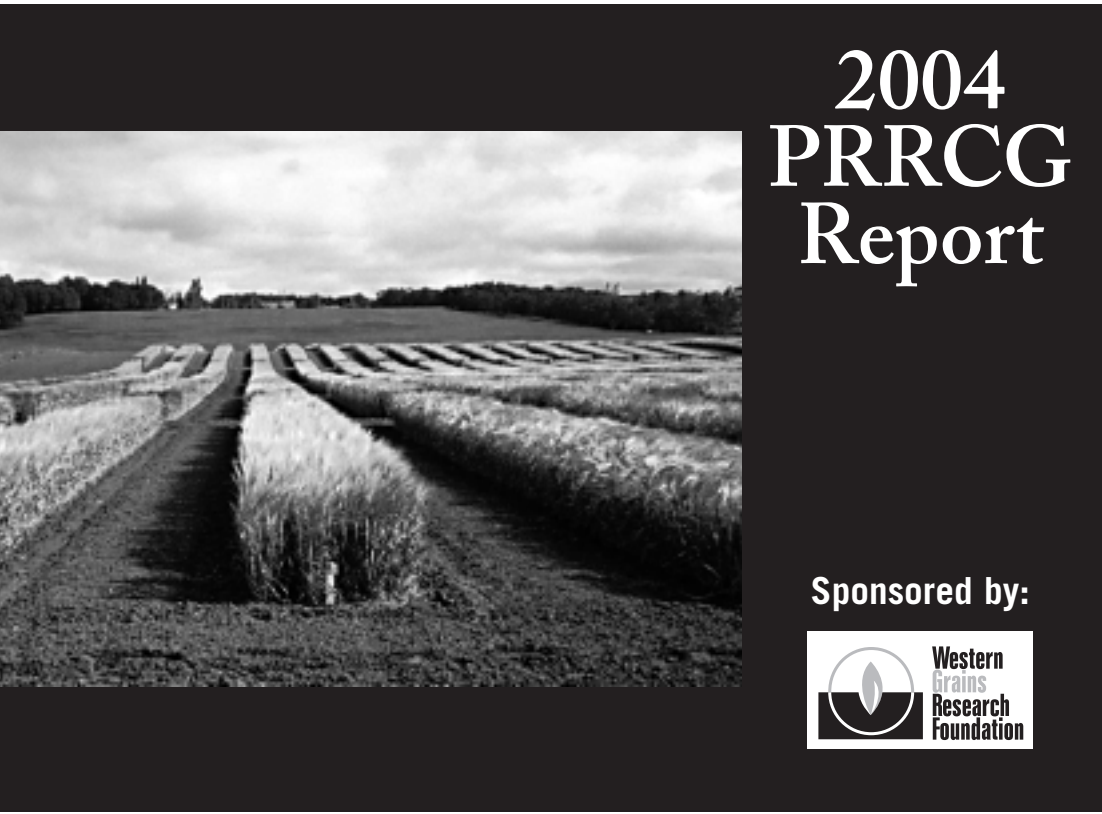


Kick-starting *a new* Era



2004 PRRCG Report

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Inside:

- Breakdown of key issues
- Major review updates
- First look at new crop lines

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Kick-starting a new Era

The Prairie Registration Recommending Committee for Grain (PRRCG) annual meeting is the place where new crop lines developed by plant breeders are judged by experts to see if they are worthy of becoming registered varieties available to Canadian Prairie farmers. The meeting provides a first look at new lines that will fill Prairie fields over the next several years. It also provides a window on key issues in crop development.

What will it take to develop and deliver crop varieties that give Canada's crop industry the best chance of success in the future?

This is the question facing all components of the industry, as it prepares for a dramatic overhaul set to take place over the next several years.

Canada's variety registration system, its seed sector and its grain quality assurance system are all the subject of major reviews and imminent large-scale changes, with important implications for farmers, industry, consumers and society.

The often contentious and emotional issues wrapped up in these changes include public versus private control, farmer and market choice versus regulatory standards and quality control, and how to handle genetically modified organisms (GMOs) and other unique innovations, among others. At stake is the very competitiveness and fate of Canada's crop industry, a powerful economic engine with direct bearing on thousands of livelihoods, vast areas of land, the food system and public health.

Major reviews and pending changes

Taken as a whole, the scope and weight of these issues and their challenges can be overwhelming. But bit by bit, step by step, the crop industry – its regulators, participants and stakeholders – is pursuing a thorough process of review and change, to chart a new course for Canada.

First and foremost, the Canadian Food Inspection Agency (CFIA) has conducted a landmark review of the variety registration system, unprecedented in its scale, and is preparing to put forward a major regulatory change proposal in late 2004 or early 2005.

In part due to a request from CFIA, Canada's seed sector is pursuing its own major self-assessment, with a comprehensive, across-the-board analysis of where the sector is today, where it needs to go and how it can get there. The completion of this review is expected in spring 2004, and will feed into the variety registration review considerations.

On the parallel front of grain handling, the Canadian Grain Commission (CGC) is building a new strategy for grain quality assurance. As part of this effort, for the past several years, the CGC has concentrated heavily on exploring alternatives to the current Kernel Visual Distinguishability (KVD) system for wheat – ones that would accommodate a greater diversity of crop varieties to meet increasingly fragmented market demands. An assessment of the potential in Variety Eligibility Declarations (VEDs) was completed in late 2003, and the CGC is using the results to form its emerging new strategy for wheat quality assurance.

Window on key issues, new crop lines

This climate of change formed the backdrop of the Prairie Registration Recommending Committee for Grain (PRRCG) meeting in Saskatoon, in February 2004, where top crop specialists convened to conduct their annual process of evaluating new crop lines developed for the Canadian Prairies and recommending the best ones for federal variety registration.

The PRRCG is a body of crop development experts and various stakeholders that operates under the authority of CFIA, with a mandate to evaluate and recommend crop lines for registration in the Canadian Wheat Board (CWB) area of Western Canada. It is one of several recommending bodies across the country that advise CFIA, which is charged with administering and overseeing Canada's plant variety registration system.

The PRRCG includes four subcommittees, each representing specific crop areas.

- The Wheat, Rye and Triticale Subcommittee
- The Barley and Oat Subcommittee
- The Pulse and Special Crops Subcommittee
- The Oilseeds Subcommittee

(Note: Canola is not under the auspices of the PRRCG, but has its own recommending body for Western Canada – the Western Canada Canola/Rapeseed Recommending Committee.)

The PRRCG meeting includes a plenary session attended by all subcommittee members and registered guests. This is followed by individual subcommittee meetings, which are attended by voting subcommittee members and a gallery of non-voting registered guests. The vast majority of voting subcommittee members are plant breeders and other experts in agronomy, quality and disease, though producers and other interest groups are also represented to varying degrees. The full gallery, including non-voting guests, can include everyone from scientists and producers to regulatory agencies, seed companies, other industry organizations and other special interests, including consumers and the general public.

For the plant breeders who spend years developing new crop lines, the meeting is a high stakes event where the results of their work are presented and judged. Most lines under scrutiny are the result of a seven to 15 years of development and testing, and only those judged to be top performers with clear benefits for the industry are recommended. For key crops such as wheat and barley, approval also requires performance data judged to show “equal or better than” performance over standard check varieties.

While the PRRCG sessions are geared to recommending new crop lines for registration, the discussions and decisions also provide a window on important issues in crop development, including the key issues affecting the crop industry at a broad level.

PRRCG in transition

At the 2004 meeting, the primary issue on the PRRCG agenda was the future of the recommending committee itself. As part of the CFIA variety registration review, and in response to a range of new issues, the PRRCG in recent years has undergone a thorough re-examination of its role, resulting in calls for fundamental

changes to the committee structure that would give the four subcommittees more power to make decisions in the best interest of the crops they represent.

The details and rationale of PRRCG’s decision on this issue, along with other highlights of discussion at the meeting, are featured in this *Meristem Land and Science 2004 PRRCG Report*, developed as a service to western Canadian farmers, industry and the broad stakeholders in Canadian crop development. The report also includes a listing of the new crop lines recommended for registration at the meeting, with a profile of key traits, and a backgrounder on PRRCG processes and procedures.

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The five key stages of variety development

A recap of how new crop lines are developed and registered for the PRRCG jurisdiction of Western Canada.

The steps toward variety registration constitute a long process for the many crop lines developed every year at breeding programs across Western Canada. The breeding work itself can take from seven to 15 years, depending on the crop and the approach. This is followed by several years of Prairie-wide testing, as well as a thorough evaluation by the region's top crop experts of the PRRCG. The best performers are recommended for federal variety registration to the Canadian Food Inspection Agency (CFIA), which makes final decisions.

This journey can be broken down into five key stages.

1. Developing a breeding strategy

The first stage begins at the crop breeding level. Plant breeding institutions, with broad input from a variety of stakeholders, develop breeding strategies based on a wide range of production and market factors. Whether the goal is to find a niche and fill it, boost the performance of tried and true variety types, or come up with an innovative groundbreaker, the strategy ultimately settles on targeting a complex mix of traits. These include everything from agronomic, yield and quality characteristics, to resistance against important diseases and pests.

2. Gathering key traits

Searching for this cocktail of traits and pulling them together involves years of breeding and selection. Breeders begin by gathering a large pool of seed for crop lines – known as the germplasm pool – that contain the targeted traits. Lines are screened for these traits, and the desirable ones are bred with one another, generation after generation, until the breeder develops a single line that has all the targeted traits “fixed” in its genetics.

New cereal lines put forward for registration, such as wheat and barley, are typically the product of seven to 10 years of breeding. The time requirement is usually shorter for special crops and oilseeds because the genetics are less complex and easier to work with. Breeders can slash years off the process for all crops by using winter nurseries in other countries to grow two

generations per year, or by using new molecular techniques as a shortcut to identify true breeding lines.

3. Prairie-wide testing of top prospects

Once breeders are satisfied they've developed a good crop line, it is put forward for testing across the region. These Prairie-wide tests – known as the “co-op” trials – are a co-operative effort among breeding institutions and others to facilitate testing under a broad range of soil and climatic conditions. These trials are administered by the PRRCG, which includes nearly all the major Prairie crop development researchers, along with industry, producers and various end-user representatives.

4. PRRCG evaluates and makes recommendations

The crop lines that survive this rigorous testing can be put forward by the plant breeder for registration support at the PRRCG meeting held every February. The PRRCG's mandate is to act as a recommending body to the CFIA, which makes all final decisions on which crop lines are approved for federal variety registration. PRRCG members critically examine the performance data on co-op lines and decide which to recommend to CFIA. Depending on the crop, lines must have demonstrated equal-to-or-better-than performance over standard or “check” varieties to gain registration support.

5. CFIA Variety Registration Office grants final approval

Crop lines that fall under the PRRCG mandate must go through the PRRCG system before they can advance for consideration by the CFIA. The PRRCG recommendations are forwarded to the CFIA's Variety Registration Office, which uses them as a basis to determine if the crop lines will be granted final approval as new registered varieties for Canada. A decision on most lines is made within a year of the PRRCG recommendation, and the large majority of these are accepted, barring unforeseen plant safety or market concerns.

Shifting power to **crop subcommittees**

Greater control over appeal processes and crop-specific issues cited as key drivers of resolution to dissolve PRRCG.

The future of Western Canada's major recommending body for grain registration took a dramatic shift at the Prairie Regional Recommending Committee for Grain (PRRCG) annual meeting, Feb. 24-26, in Saskatoon.

The roughly 200 PRRCG members in attendance voted by the required greater than two-thirds majority to dissolve the committee, effective April 1, 2005, and shift full powers to its four crop-specific subcommittees, allowing them to become independent recommending committees.

The resolution, which still requires approval by the Variety Registration Office (VRO) of the Canadian Food Inspection Agency (CFIA), is largely the result of a desire for greater control among the subcommittees to handle appeal processes and other governance issues, and to deal directly with the VRO on crop-specific issues, says Dr. Mario Therrien, PRRCG Chair. This thinking has emerged in part due to a request by CFIA that the PRRCG re-examine its role as part of the CFIA's broad review of the variety registration system.

"What we're proposing is to remove a layer of governance that the PRRCG members have come to feel is unnecessary," says Therrien. "The subcommittees have, for the most part, operated independently anyway, with the PRRCG executive acting essentially as a rubber stamp on subcommittee decisions. However, to this point, the appeals process and some governance issues have remained handled by the executive. This resolution would shift these powers to the current subcommittees, which are better equipped to make decisions in the best interests of the crop areas they represent."

Balancing crop needs with group benefits

The vote is the culmination of several years of debate on the issue of subcommittee power. In 2002, the PRRCG's Wheat, Rye and Triticale Subcommittee voted to break away from the larger

PRRCG body and form its own recommending committee – a move that was held off to allow PRRCG as a whole to address subcommittee concerns.

In addition to the Wheat, Rye and Triticale Subcommittee, the PRRCG includes the Barley and Oat Subcommittee, the Pulse and Special Crops Subcommittee and the Oilseeds Subcommittee.

In previous meetings, members representing larger acreage crops have cited a need for more subcommittee control over appeal processes and operating procedures, in order to better deal with crop-specific issues, such as stringent quality requirements. They have also expressed a desire to deal more directly with CFIA on looming issues, such as genetically modified crop lines and plants with novel traits (PNTs). On the other hand, those representing smaller crops have cited a need to preserve the strength and efficiency of working with other crop groups within PRRCG.

The current resolution reflects a balance of both views, says Therrien. While subcommittees would become independent recommending committees with greater control over their activities, an element of the PRRCG umbrella would be preserved to perform common administrative and liaison functions.

According to the resolution, the PRRCG handling of appeals from the subcommittees would be conducted as outlined in the procedures of the individual recommending committees, in which there would be a provision for the option of a third-party based committee to rule on the appeals. Also, the newly created recommending committees would have the option of using their existing membership in the Western Expert Committee on Grain Breeding as a basis to meet in a common forum and conduct business of mutual concern.

Even if the resolution is approved by CFIA, the PRRCG still plans to hold a final annual meeting under the current structure in February 2005.

Q&A: Dr. Mario Therrien

The PRRCG Chair explains the thinking behind the resolution to dissolve the committee, and what this decision means for the future of Prairie crop registration.

Q: What's the main rationale behind this resolution?

A: To this point, the PRRCG has been headed by an executive, which includes an overall chair and secretary along with the chairs and secretaries of the four PRRCG subcommittees. In addition to its role as an umbrella for general administration, this executive has been empowered with handling the appeals process for crop lines seeking recommendations of support at the subcommittee level. It has also been empowered with a final say on governance issues.

However, in recent years, some problems have been identified with these executive powers. These stem mainly from the idea that subcommittees, not the executive, are best equipped to make decisions affecting the crops they represent. For example, it doesn't make sense for a barley person or a pulse person to rule on a decision in the wheat area. If it's a wheat question, it should be handled by the Wheat, Rye and Triticale Subcommittee, which represents broad expertise in the wheat area.

With this new resolution, what we're proposing is to remove a layer of governance that the PRRCG members have come to feel is unnecessary. The subcommittees have, for the most part, operated independently anyway, with the PRRCG executive acting essentially as a rubber stamp on subcommittee decisions. However, to this point, the appeals process and some governance issues have remained handled by the executive. This resolution would shift these powers to the current subcommittees, which are better equipped to make decisions in the best interests of the crop areas they represent.

It's important to keep in mind that the PRRCG is simply a recommending body. The Variety Registration Office (VRO) of the Canadian Food Inspection Agency (CFIA) has the authority to approve or reject all PRRCG decisions, and that wouldn't change if the VRO were to approve this resolution. The newly created independent subcommittees would still require VRO approval of all of their operating procedures and decisions.

Q: The appeal process has been a major focus of discussion around the need for changes in PRRCG. Can you elaborate on this specific issue?

A: The responsibility for hearing and judging appeals has sat with the PRRCG executive. If a sponsor of a crop line objects to

the decision of a subcommittee, an initial appeal can be made to the PRRCG executive, whereby the executive votes and majority rules. The problem with this is that the appeal process is handled outside the main area of crop expertise, which is the subcommittee. Once the subcommittee makes a decision, who are we, as an executive, to tell the subcommittee anything different, when our expertise in the particular crop area is much more restricted?

Quite frankly, the executive, by its very nature, has not been in a position to properly look after the appeals. The executive itself has felt this imposed on it an onerous level of responsibility. Under the new resolution, appeals would be conducted as outlined in the procedures of the individual recommending committees, in which there would be a provision for the option of a third-party based committee to rule on the appeals. Basically, the newly independent committees would have an opportunity to design individual processes that best meets their needs, provided those processes are approved by the VRO.

Q: How does this relate to issues of process and procedures?

A: The same basic rationale applies. Different crops have different needs, and it simply makes better sense for subcommittees to design processes and procedures that best meet the needs of the crops they deal with.

A lot of thinking has come to a head in recent years. The VRO reviews the PRRCG's work every five years, before renewing the PRRCG's five-year mandate. Following the most recent review in 1999, the VRO identified some specific issues related to PRRCG voting procedures and the way meetings are conducted. In looking to address these issues, it became clear that 'one-size fits all' approaches wouldn't work in all cases across the subcommittees. Recognizing the current subcommittee groups as independent recommending bodies would make it easier for these groups to develop processes that make sense for individual crops, and to deal directly with the VRO in addressing concerns.

Officially, the PRRCG executive has had final approval on all subcommittee decisions. But in all routine matters, this has boiled down to the executive listening to the subcommittee decisions and simply nodding up and down. The subcommittees have essentially operated independently already anyway, so why

not adjust the formal structure to reflect that? That has been the basic thinking.

The ability to streamline communication is becoming more important, as recommending committees deal with more issues of industry and public concern. As chair of PRRCG, if there was a concern from the VRO on an issue the Barley and Oat Subcommittee had dealt with, the formal process was that the question would initially come to me, which is really an added, unnecessary step. Other than act as a general spokesperson on issues of mutual concern and as an emcee for PRRCG meetings, there was really no reason for the PRRCG executive to act as a go-between for the subcommittees and the people they need to deal with.

Q: What elements of the PRRCG umbrella will be preserved?

A: Under the resolution, the PRRCG itself would dissolve completely and there would be no further operations under

that name. However, the current members of PRRCG could still meet as a group under the auspices of the Western Expert Committee on Grain Breeding (WECGB). All current PRRCG subcommittees and their members are, by definition, members of WECGB, which is where the PRRCG derives a key part of its mandate to present views on issues related to crop development and present them to the policy makers and regulators.

The WECGB actually preceded the PRRCG and also includes other commodity representatives such as canola and forages. If the PRRCG resolution is approved, it is our intention that the newly created recommending committees join with these groups to revitalize the WECGB as a forum to deal with and present views on key issues that cross crop boundaries. One immediate example of an issue that could be dealt with under this forum would be the issue of "plants with novel traits," and there are many other possibilities.

Changes to the variety registration system

The Canadian Food Inspection Agency is almost done its large-scale review of the variety registration system, and is preparing to move forward as early as late 2004 with a proposal for dramatic restructuring.

The rubber is set to hit the road for major proposed changes to Canada's variety registration system. For the past five years, the Canadian Food Inspection Agency (CFIA) has conducted a thorough review of the system, unprecedented in its scale, with an eye on overhauling the system to make it more responsive and flexible, to accommodate a range of pressing challenges.

That review is nearing completion, reported Glyn Chancey, Director of Plant Production Division, CFIA, in a presentation at the PRRCG meeting. Though a final proposal had been expected by this year's meeting or earlier, the process has been placed on hold to await the completion of a broad, industry-driven Seed Sector Review, which is expected to wrap-up later this year.

"At this stage, there are two key areas that we're focusing on," says Chancey, "a new regulatory change proposal, and a new consultative framework."

Information from the Seed Sector Review will help guide direction in both areas, he explained. The CFIA then expects to be ready to move forward with an updated regulatory change proposal in late 2004.

Emerging areas of consensus

The variety registration review, which has included an extensive stakeholder consultation process, has been ongoing since the fall of 1998. "Over the intermediate period, stakeholder views have evolved somewhat, as have our proposals in response to those views," says Chancey. The CFIA's most recent regulatory proposal, issued in 2002, is available on the CFIA Web site, www.inspection.gc.ca.

For the PRRCG, the heart of debate surrounding this review had been a recommendation in CFIA's original proposal to remove agronomic merit as a requirement for variety registration of key crops such as wheat and barley. However, under the latest 2002 draft proposal, a new "Schedule A" crop category was created to uphold merit assessment for agronomics as a requirement for western wheat and barley varieties. Despite this, the 2002 draft proposal still represents dramatic change for Canada's variety registration system as a whole, with a general trend to move away from the merit principle as a key pillar for registration.

While the CFIA has yet to develop a final proposal to move forward with, it has identified a number of key areas of consensus. Chancey outlined several of these at the PRRCG meeting. They include the need to:

- Maintain merit and/or performance testing requirements, where needed.
- Maintain a capability to deal with consumer confidence especially in health and safety issues.
- Increase the flexibility and responsiveness of the existing rule making process.
- Strengthen existing consultative structures.

Crop schedules a key issue

While there is strong consensus on these points, there remain several key areas of debate regarding the details. Chief among these is the issue of crop schedules.

Under the 2002 CFIA draft proposal, crops would fall under one of three schedules. Schedule A crops would retain some form of merit as a requirement. This would include major crops such as wheat, canola, barley, rye, triticale, oat, mustard, flax, pea and sunflower. Schedule B crops would not require any merit assessment, but they would require a minimum of one year of performance information to be available at the time of registration. Schedule C crops would require neither merit assessment nor performance testing information.

Various crop stakeholders, including PRRCG, have been asked to recommend which crops should fall under which schedules. While

there is general agreement on requirements for most major crops, different points of view have emerged on others. “There’s still a fair bit of debate, but this is an issue we’re trying to settle,” says Chancey. A key issue is whether there should be exemptions from the registration process for crops that don’t have strict requirements. “The seed sector assessment has moved things forward on that point in terms of identifying the fundamental roles that the variety registration system can play. However, further debate and consensus building is required, particularly within sectors that would generally prefer to be exempted.”

Other key areas of debate include the role of the variety registration system in regulating “plants with novel traits,” known as PNTs, and in the seed certification system.

Adding speed and flexibility

On the overall goal of greater responsiveness and flexibility, the CFIA is examining the feasibility of converting certain regulations – which typically take one or two years to change – to administrative procedures referenced in the regulations, thus allowing changes to be made more quickly. “On this issue, it’s not simply a question of whether you have rules in place, it’s a question of whether you have the ability to change them when you need to. Ultimately, however, it will be the consultative and consensus building mechanisms that we have in place that will determine the pace of change. Hence the emphasis in the Seed Sector Review on the development of a strengthened consultative framework.”

Sowing a new vision for Canada’s seed sector

An industry-led, industry-wide assessment sets the stage for a new generation.

Canada’s seed sector is also undergoing a major review and strategic planning process. In a separate presentation at the PRRCG meeting, Monty Doyle, Project Manager of the Seed Sector Review, updated the committee on progress with that project, which is expected to wrap up this summer.

“The review is an industry-led, industry-wide assessment of the Canadian seed sector and Canada’s seed regulatory environment in the global context,” Doyle explained. Among its more specific purposes is a goal to generate consensus on challenges facing the sector and on options for facilitating constructive change, with a key area of focus being the regulatory framework and related systems.”

The review aims to develop recommendations for the structure of the CFIA’s regulatory scheme and for priorities for regulatory change.

A changed world

It’s been about 20 years since the seed program of CFIA was thoroughly reviewed, says Doyle. “Since that time, certainly the pressures on that program have changed, but more importantly, the world has changed.”

Along with new players in the system, there are important changes in science and technology, in the operations and demands of markets and in the expectations of consumers. “A lot of changes have taken place which have increased the pressures on the

system. This puts equal pressure on the capacity of the sector to manage change.”

Key result areas

The Seed Sector Review began in early 2003, as a collaborative effort led by the Canadian Seed Growers Association (CSGA), the Canadian Seed Trade Association (CSTA), the Canadian Seed Institute (CSI) and the Grain Growers of Canada (GGC), with funding awarded by Agriculture and Agri-Food Canada. The effort was based in part on the CFIA's request for direction from the sector, as part of its variety registration review, and the CFIA has since provided expertise and other in-kind support.

Core direction for the assessment is handled by an 18 member Advisory Committee, representing various components of the sector. Following its initial meeting, the committee identified five key result areas it saw as essential to the future of the seed industry.

Regulatory flexibility and timeliness. “The challenge here is finding the right balance between the dual needs for flexibility and ease of change on the one hand, and the need for consistency of the investment environment on the other,” says Doyle.

Positive environment for science and innovation. “This is an industry that runs on science and innovation, whether it's from the private sector or public sector. The review is looking at the environment provided for scientists to share approaches to science innovation, and how to create a supportive, enabling, facilitative environment to encourage investment in this area.”

Profitability of the sector. “In order for the sector to work, everybody in the value chain has to be making money, so this key result is concerned with the creation and capture of wealth in the marketplace,” says Doyle. “It also concerns things like leveling the playing field for certified seed to compete with common seed, increasing the use of certified seed of all crop kinds, creating higher value commodities, and so on.”

Consumer acceptance and confidence. “This concerns the capacity of the sector to continue to meet consumer expectations for health, safety, quality, and world class systems to manage crisis when they occur. Regarding crisis, certainly we're seeing this need in other commodities, with situations such as BSE and Avian flu, etc. This underlines the need for industry sectors to be ready to respond to these types of challenges.”

Feedback: rapid response, registration reform

Based on the feedback gathered by the review thus far, a top priority for addressing these concerns is improving the sector's capacity to respond rapidly to new innovations and market signals, says Doyle.

The need to improve the variety registration process has also been a front and centre point of discussion. “It's fair to say there's been a strong consensus of a need for change in this area. In terms of the direction for change, there seems to be a lot of thinking around a more nuanced type of regulatory system that better recognizes special needs of different crops, as well as a focus on a ‘back to the basics’ approach with respect to minimum standards.”

New thinking on wheat quality assurance

Terry Harasym of the Canadian Grain Commission updated progress toward KVD alternatives and outlined key elements of Canada's emerging wheat quality assurance strategy.

Canada's quality assurance system for wheat has long relied on Kernel Visual Distinguishability (KVD) as a segregation tool. Different classes of wheat are bred to have features that make them distinguishable by the human eye, providing the basis by which different classes of wheat are kept separate in the grain handling system. But increasingly, relying on KVD as a segregation tool is proving inadequate to uphold the system's integrity and to meet a broader array of farmer and market demands.

Under a segregation system based on KVD alone, visually indistinguishable, non-registered varieties of wheat have potential to compromise the Canadian quality assurance system if they are misrepresented. This can cause significant financial losses for grain handling companies and marketers, which can work its way back to producers. KVD also limits the ability of plant breeders to rapidly incorporate improved disease resistance, agronomic and quality characteristics into new wheat varieties, and it can impede the handling of non-milling wheats, such as high yielding

feed varieties or wheat used for industrial purposes such as ethanol production.

In response to these concerns, the Canadian Grain Commission (CGC) established an advisory committee in 2001 to consider alternatives to relying on KVD for grain segregation. The committee was representative of producers, grain handlers, marketers and other key industry players. A major recommendation by the committee was the development of a proposal for a comprehensive traceability and liability transfer system, and to put this proposal forward for discussion.

The CGC responded by developing and seeking broad feedback on a proposal to use a Variety Eligibility Declarations (VED) system to segregate grain in the handling system. The VED approach would require declaration and sampling of western grain at every point in the handling chain, beginning with deliveries at primary elevators.

The VED approach showed some potential benefits. However, extensive stakeholder consultations, an operational feasibility assessment, and independent cost and benefit studies identified concerns costs and other practical hurdles to widespread reliance on VEDs. The CGC concluded that the potential benefits of a mandated VED system are not sufficient to justify implementation at this time.

At the 2004 PRRCG meeting, Terry Harasym, Assistant Chief Commissioner of the CGC spoke on these findings. He also provided a preview of how the Commission will continue to address the wheat quality assurance issue, outlining three major elements of the CGC's Wheat Quality Assurance Strategy (WQAS).

Harasym's views

Key excerpts from Harasym's presentation:

On variety eligibility declarations (VEDs)

Terry Harasym: The concept of VED was intended to address two primary issues: 1) visually indistinguishable, non-registered wheat varieties that potentially can enter our handling system and compromise the quality of our premier milling wheats, and 2) the constraints that KVD imposes on the development and handling of non-milling wheats.

If this concept was to have moved forward, it would have required legislative change to require producers to declare the class of their grain upon delivery to an elevator. Samples would then be taken, and declarations signed, each time grain changed handling in the handling system. Theoretically this would make it possible to trace non-registered and potentially misrepresented varieties back to their source. Those responsible for this misrepresentation could then be held accountable and be subject to penalties or other sanctions.

The decision was made that we are not prepared at this time to go forward with a government mandated VED system. The benefits to producers and other industry stakeholders, in our view, are not sufficient at this time for us to do that.

However, this view does not apply to the use of declarations in commercial transactions. We support this – we think it's a very important part of the evolution of our system. There are already, for example, declarations that are in use by primary elevators and producers with respect to Alsen wheat. I think it is quite likely that declarations will form an integral part of the grain production, marketing and handling system as we move forward.

More detail on this is available on our Web site, www.grainscanada.gc.ca, including detail on the comprehensive analyses and a more expansive explanation of the CGC's decision and plans.

On new technology for variety identification

For the future, I think the ultimate solution lies in technology. A driveway test is quite a few years away, but we at CGC and others have made some very significant advances in variety identification research, and we're continuing to do that.

The CGC will behave as a catalyst in mobilizing more resources and in moving toward an industry technology strategy in a collaborative fashion. If we believe that technology is the solution, we need to figure out collectively how we're going to solve this, so that five years from now I'm not standing here again saying that maybe we will have a technological solution five years out. We need to mobilize resources, and to find ways to do the variety ID technology research in a faster, more defined manner. The quality assurance problem is an industry problem, and a technology solution will only come if the industry collectively decides it wants to move forward.

On increased variety monitoring

On another front, we at the CGC are going to increase our monitoring of rail car shipments in order to deal with the non-registered variety issue. If we find shipments that contain non-registered varieties in excess of grade tolerance, we will downgrade them. I think these instances are then going to be dealt with by the system participants in a commercial way.

On wheat class restructuring

Lastly, we have not stopped thinking about how we might be able to address the constraints of KVD on the development of non-milling wheats, such as high-yielding feed wheats. We are developing a proposal to adjust the western wheat class structure

in order to accommodate such wheats. Our thinking is in preliminary stages, but I think there are some ways to produce a very positive effect. If the crop development community is willing to be a little bit creative, we should be able to figure out a way of allowing for greater flexibility in the ability of our system to handle non-milling wheats for specific markets.

Overall, in the short term, we are going to deal with the challenges surrounding this issue to the best of our ability, within the system that we have. Solutions are not likely to be found very easily. Ultimately, it's going to boil down to everyone in this room and the rest of the industry getting involved from a leadership perspective. Everybody has to come to the table and be prepared to play in the game, to try to find solutions.

CROP-BY-CROP HIGHLIGHTS

Wheat, Rye & Triticale Subcommittee

The Wheat, Rye and Triticale Subcommittee evaluates lines based on agronomic performance, disease resistance and end-use quality. Here are activity highlights from the 2004 meeting.

Key action

Support for dissolution of PRRCG. The Wheat, Rye and Triticale Subcommittee supported the PRRCG resolution to dissolve the PRRCG and allow current subcommittees to become independent recommending committees. This is consistent with this subcommittee's actions in recent years. For example, in 2002, it voted to break away from the larger PRRCG body and form its own recommending committee – a move that was held off to allow PRRCG as a whole to address subcommittee concerns.

Buffer zone extended for Roundup Ready wheat testing. The subcommittee adjusted its protocols for the testing of Monsanto's Roundup Ready wheat, which is set to enter its third of the typical three years of pre-registration testing. Because this wheat is considered a genetically modified organism (GMO), it is undergoing testing in confined field trials, rather than the normal co-op testing system, with the aim of preventing cross contamination with other wheats.

The protocol for this testing, which is determined by the PRRCG with approval from CFIA, has called for a buffer zone of 30 metres between Roundup Ready wheat plots and any adjacent wheat crops, as well as the planting of a taller crop such as corn in this zone to act as a pollen trap. Based on concerns that out-crossing may still occur in rare circumstances under this protocol, the subcommittee passed a motion to extend the buffer zone to 300 metres.

Motion to not recommend confined candidates. On a related note, the subcommittee supported a separate motion stating it would not

recommend for registration any crop line not approved for unconfined release in Canada. This would affect Roundup Ready wheat, which is not approved for unconfined release and has been undergoing pre-registration testing in special confined trials.

Testing added for Fusarium-produced mycotoxin. The subcommittee's disease evaluation team added testing for the deoxynivalenol (DON) mycotoxin as part of its co-op testing system evaluations. DON is produced by Fusarium Head Blight and can render grain unfit for livestock or human consumption.

Last stand for Alsen comes up short. The American wheat variety Alsen was rejected by the subcommittee in what was likely its final bid for a recommendation of registration for Canada. The variety has become widely known for its level of resistance to Fusarium Head Blight (FHB), which is substantially higher than that of all current Canadian wheat varieties. However, as in a previous bid, the subcommittee cited end-use quality concerns as a major drawback.

Major gain in Fusarium resistance. On a related note, the subcommittee recommended a new CWRS line, BW297, which represents a major gain in FHB for Canadian wheat. While not as resistant as Alsen, BW297 features substantially greater resistance than AC Barrie, which is acknowledged to have highest resistance among current Canadian varieties. There was a feeling that the emergence of BW297 helped soften the blow of the Alsen rejection. The Agricore United/Proven Seed line was hailed as an excellent overall variety candidate that combined valuable FHB resistance for farmers with top market quality characteristics.

List of crop developers referenced in variety descriptions.

- Agricore United
- Agriculture and Agri-Food Canada (AAFC)
- Gen-Tec Seeds Ltd.
- Jordans, the Netherlands
- North Dakota State University
- Proven Seed
- Svalof Weibull AB.
- University of Saskatchewan Crop Development Centre (U of S CDC)
- Western Plant Breeders

Recommended lines

BW297. CWRS wheat. Strong combination of very high-yield and high protein – 9.5 percent higher yield and one percent higher protein than AC Barrie. Solid disease package with higher levels of Fusarium Head Blight and rust tolerance than any current CWRS varieties. Represents a major step up in Fusarium resistance, rated at moderate resistance, at a level between AC Barrie and the well-known U.S. variety Alsen. Agricore United/Proven Seed.

BW799. CWRS wheat. High-yielding, high protein variety with very strong overall performance, particularly in the Dark Brown Soil Zone. AAFC Swift Current.

BW301. CWRS wheat. High yield and early maturity. Solid disease resistance package, featuring resistance to leaf rust, bunt and loose smut. U of S CDC.

BW307. CWRS wheat. Has solid disease package. Yields four percent higher than Barrie and three percent lower than Mackenzie. Protein one percent higher than the checks. Resistance to leaf rust, stem rust and loose smut. Fusarium resistance similar to AC Barrie. AAFC Winnipeg.

ES63. CWES wheat. First semi-dwarf extra strong for Western Canada. Shorter and stronger straw than Glenlea, with eight percent higher yield and improved common bunt resistance. Recommended for all growing areas except northern. AAFC Winnipeg.

DT722. CWAD wheat. A strong gluten durum, with greater gluten strength than Navigator. Semi-dwarf, with higher yield than all checks except DT712. Similar maturity and test weight to Avonlea. AAFC Swift Current.

Snowbird. CWHW wheat. One of two first lines put forward in a new class of CWRS-style white wheat, which offers preferred colour and higher flour extract. Granted interim registration in 2001 to facilitate market evaluation. Full registration will allow more time to judge market acceptance. AAFC Winnipeg.

Kanata. CWHW wheat. Supported for an additional two years of interim registration. Second of two first lines put forward in a new class of CWRS-style white wheat. Granted interim registration in 2001 to facilitate market evaluation. Further interim registration will allow more time to investigate commercial potential. First commercial launch planned for spring 2004. AAFC Winnipeg.

HY475. Supported for three-year interim registration. Has potential as a CPSW or CWHW wheat variety, with earlier maturity and higher test weight than AC Vista. Seven percent higher yield than Snowbird. Interim registration will allow more time to assess quality and find best class fit. AAFC Swift Current.

HY476. Supported for three-year interim registration. Has potential as a CPSW or CWHW wheat variety. Major feature is a new gene for resistance to common bunt, known as BT 8. This is the first deployment of the gene, which is needed because all current variety resistance is based on a single gene, BT 10, which is expected to lose effectiveness over the next several years. Like HY475, has earlier maturity and higher test weight than AC Vista, with higher yield than Snowbird. Interim registration will allow more time to assess quality and find best class fit. AAFC Swift Current.

RT193. Fall rye with low viscosity. Consistent yield across soil zones. Significantly higher test weight than check varieties – 28 percent higher kernel weight. Like other fall rye varieties, it is susceptible to ergot. AAFC Swift Current.

RT169 (Dakota). Winter rye currently used as check in the fall rye co-op testing system. It was interim registered in 1997. Full registration will allow continued use. Consistent high yields across soil zones. Susceptible to ergot. Agricore United.

SWS241 (AC Andrew). CWSWS wheat. Out-yields acreage leader AC Reed by eight percent, features stronger adult-plant resistance to the new race of stripe rust, and carries a solid overall agronomic and quality package. Aimed at irrigated production areas. Granted interim registration in 2000. AAFC Lethbridge.

Barley & Oat Subcommittee

The Barley and Oat Subcommittee evaluates lines based on agronomic, disease and quality performance. A look at developments from the 2004 meeting.

Key action

Shifting power to subcommittees. The Barley and Oat Subcommittee supported the PRRCG resolution to dissolve the PRRCG and allow current subcommittees to become independent recommending committees. If approved by CFIA, the resolution would allow the Barley and Oat Subcommittee to develop its own operating procedures including an appeals process and it would report directly to CFIA's Variety Registration Office.

Seeking direction on "plants with novel traits." PNTs is the term coined in new federal regulations governing the registration of new plant varieties, designed partly in response to the controversy over GMO crops. Rather than focus on the method used to introduce traits, which is how GMOs are defined, Canada has chosen to focus on the actual traits expressed. If labeled a PNT, plant lines can be subject to more intensive tests, such as those falling under the auspices of Health Canada and the *Food and Drugs Act*.

This has raised concern in the subcommittee that lines with "new" traits, such as waxy or low phytate barley lines could be labeled PNTs, even though they are bred conventionally. This could add cost, stifle innovation and give the resulting varieties a stigma associated with GMOs. Another issue is liability concerns with identifying and handling potential PNT crop lines in the development process leading up to registration.

Discussion on disease concerns. The issue of disease evaluation continues to be a challenging one, as reflected by subcommittee discussion. One challenge raised at the meeting was the changing nature of some plant pathogens in response to host resistance. Pathologists typically monitor pathogen populations, especially for those known to change rapidly (i.e. some cereal pathogens) and adjust their testing protocols accordingly. For example, new strains of oat stem rust and barley stem rust have increased in frequency over the past several years. In response, it was proposed that these strains be added to the epidemic mix used for testing in order to provide a truer picture of the potential resistance in proposed lines.

The challenge of non-malt quality evaluation. The subcommittee's quality evaluation team has a challenge dealing with non-malt barley lines. The team is comprised almost entirely of expertise in malting quality, which raises the issue of how to

properly evaluate barley lines designed for use in feed, food and other specialty channels. The team agreed to establish two advisory groups, outside the team, with expertise on the quality of food or feed barley. These groups, comprised of processors and researchers, will be consulted on quality concerns for food or feed barley as required.

Recommended lines

FB006. Six-row silage barley. Broadly adapted but performs particularly well in eastern Prairies. Very leafy with high forage quality. Not suited to grain production, but tailored for silage and extended grazing. AAFC Brandon.

FB201. Two-row forage barley particularly well suited to drier regions. Not suited for use in high-risk lodging conditions. U of S CDC.

FB302. Two-row hooded hay-type barley. Grain yield for hooded type is good and no significant peeling problem. Hooded quality allows for direct feeding from a bale. Particularly suited to western Prairies, where haying barley is a more common practice. Western Plant Breeders.

BT490. Six-row white aleurone malting barley. It out-yielded CDC Sisler and Excel in the Brown and Grey Soil Zones. Maturity is similar to Excel but BT490 has shorter and stronger straw. It has disease reactions similar to CDC Sisler with better resistance to common root rot. Good malting quality with lower protein content than both checks. U of S CDC.

HB811. Two-row hulless waxy barley. Very high quality, with solid agronomic package. Particularly suited to western Prairies. Western Plant Breeders.

HB109. Two-row hulless milling barley. Very unique characteristics, including high milling yield – equal to wheat. Blends easily with wheat, with no significant discolouration, bringing potential for use in wheat-based products. AAFC Brandon.

OT398. Spring oat with good agronomic performance and outstanding grain quality. Highest milling yield percentage of all entries in both the 2002 and 2003 co-op Western trials and the 2002 and 2003 Quaker Uniform Oat Nurseries. Resistant to smut and crown rust, with stem rust reactions similar to the best check cultivar, Ronald. U of S CDC.

OT566. A medium-yielding, high grain quality milling oat, with resistance to smut and moderate resistance to stem rust. Suitable for production across Western Canada. Agricore United/Proven Seed.

OT2021. Spring oat with superior performance in the Black Soil Zone. Features the gene Pc94, which confers resistance to oat crown rust. Should provide excellent yield stability in the rust-prone regions of the Prairies. Matures about three days later than CDC Dancer, with similar test weight and thousand kernel

weights. Higher protein content than the checks, with oil content similar to Ronald and beta-glucan content equal to or higher than check cultivars in 2002 and 2003. AAFC Winnipeg.

OT3009. Spring oat adapted to the non-rust area of Western Canada. Moderate resistance to smut, but susceptible to crown and stem rust. Not as good a performer in the field as most current varieties, but has high beta-glucan concentrations in the groat – the highest beta-glucan of all entries in the 2003 co-op trial. U of S CDC.

Pulse & Special Crops Subcommittee

The Pulse and Special Crops Subcommittee evaluates lentils, beans, field peas and other special crops grown on the Prairies. A briefing of key activity at the 2004 meeting.

Key activity

Resolution to form independent committee. The subcommittee supported the PRRCG resolution to have the subcommittee become a registration recommending committee dealing directly with the Variety Registration Office of the CFIA. The subcommittee also supported the resolution to disband the PRRCG and use the Western Expert Committee on Grain to co-ordinate Recommending Committee meetings.

New thinking on schedules. The subcommittee voted to recommend to CFIA that buckwheat, dry bean, canary grass, chick pea, faba bean, lentil, pea and lupin varieties be subject to registration according to the CFIA Schedule B. Schedule B requires evidence of the collection of agronomic, disease and quality data, as appropriate, prior to registration. Opposition to this motion from several grower groups was recognized.

Recommended lines

737-22. Small red bean line with early maturity and high yield, especially on dryland. U of S CDC.

L98E212. Great northern bean line with early maturity, upright growth habit and resistance to white mold and both yellow and orange strains of bacterial wilt. AAFC Lethbridge.

Maverick. Pinto bean variety with good seed quality, yield and maturity for wide row production. North Dakota State University.

Rally. Pinto bean variety with good yield potential, upright growth habit, lodging resistance and resistance to prevalent races of anthracnose. Gen-Tec Seeds Ltd.

C99048. Glabrous canaryseed line with increased yield over CDC Maria. U of S CDC

Cantate. Traditional canaryseed variety with improved yield, maturity and lodging resistance over Elias. It is also shorter in stature and has larger seeds. Jordans, the Netherlands.

901-1-28RS. A Spanish brown lentil line with improved yield, plant height and lodging resistance over Pardinia. It has good ascochyta resistance and is resistant to anthracnose race Ct1. U of S CDC.

1076-13. Spanish brown lentil line with high yield, increased plant height and improved lodging resistance over Pardinia. It has good ascochyta resistance and is resistant to anthracnose race Ct1. U of S CDC.

1196D-5. Large green lentil line with high yield and good ascochyta resistance. U of S CDC.

1205M-5. Large green lentil line with high yield and good ascochyta resistance. It has the earliest maturity of the large green lentil varieties. U of S CDC.

1230d-10. Large green lentil line with high yield and good ascochyta resistance. Its seed size is large and it has good lodging resistance. U of S CDC.

1153-11. Small green lentil line with high yield and good resistance to ascochyta and anthracnose race Ct1. The seed coat is uniformly light green, improving appearance. U of S CDC.

1145-3-6. Small red lentil line with high yield and good resistance to ascochyta and anthracnose race Ct1. It is taller than Crimson and Blaze with improved lodging resistance. Grey seed coat improves the uniformity of its appearance. U of S CDC.

1194-3. Small red lentil line with high yield and good resistance to ascochyta and anthracnose race Ct1. It is taller than Robin and has excellent lodging scores. U of S CDC.

1218D-18. Small red lentil line with high yield and good resistance to ascochyta and anthracnose race Ct1. It is taller than Crimson and Blaze with improved lodging resistance. Grey seed coat improves the uniformity of its appearance. U of S CDC.

1254S-16. Red lentil line with high yield and good resistance to ascochyta and anthracnose race Ct1. It is taller than Crimson and Blaze with improved lodging resistance. Larger seed size with good seed characteristics for the larger sized red lentil market. U of S CDC.

CDC653-8. Yellow field pea line with high yield, good lodging resistance, early maturity and moderate vine length. It is resistant to powdery mildew. U of S CDC.

CDC672-1. Green field pea line with high yield, good lodging resistance and early maturity. It is resistant to powdery mildew.

Seed size is medium-small, well suited to the green pea food markets. U of S CDC.

CDC715S-4. Yellow field pea line with high yield and good lodging resistance. It is resistant to powdery mildew. U of S CDC.

MP1815. Yellow field pea line with high yield and good lodging resistance. It is resistant to powdery mildew. AAFC Morden.

MP1817. Yellow field pea line with high yield, early maturity and good lodging resistance. It is resistant to powdery mildew and has improved resistance to mycosphaerella blight. AAFC Morden.

MP1820. Yellow field pea line with high yield and good lodging resistance. It is resistant to powdery mildew. Fairly round, uniform seed shape. AAFC Morden.

SW MIDAS (SW975539). High-yielding, medium-early maturing, medium-small sized yellow field pea line with good lodging resistance. It is resistant to powdery mildew. Svalof Weibull AB.

SW985804. Early, medium-small seeded yellow field pea line with good yield. It is resistant to powdery mildew. Svalof Weibull AB.

SW995848. Medium-sized yellow field pea line with high yield, early maturity and good seed shape. It is resistant to powdery mildew. Svalof Weibull AB.

Oilseeds Subcommittee

The Oilseeds Subcommittee is responsible for the testing, evaluation and recommendation of flax, mustard, sunflower and soybean. Categories for merit currently include agronomy, quality and disease. Here are highlights from the 2004 meeting.

Key activity

Support subcommittee independence. The Oilseeds Subcommittee supported two resolutions from the PRRCG executive to dissolve the PRRCG and allow subcommittees to become independent recommending bodies. The subcommittee plans to modify its operating procedures and submit them to CFIA, as a basis for approval as an independent recommending committee for oilseeds in Western Canada.

Seed Sector Review update. The subcommittee session concluded with a brief update on the Seed Sector Review. Canada's seed sector is undergoing a major review and strategic planning process, with a major goal to generate consensus on challenges facing the sector and on options for facilitating constructive change. Feedback from oilseeds interest groups is a key part of the assessment.

Recommended lines

SP2126. Solin flax that features the lowest linolenic acid (1.4 percent) of any cultivars available. Also features higher levels of linoleic acid content (70.9 percent), high oil content, significantly higher meal protein content and large seed weight (5.5 g per 1,000 seeds). It has shown high yield and stability across all soil zones of testing. It is immune to rust and has moderate resistance to Fusarium wilt. (Solin flax is yellow-seeded with low linolenic acid content.) Agricore United.

FP2102. Linseed flax, brown-seeded, with 10 percent higher yield and similar maturity to the check cultivar Flanders, in the Black and Grey (long growing season) Soil Zones. Also has significantly larger seeds (6.5 g per 1,000 seeds), and significant increases in both iodine number and protein content. Better resistance to wilt and Fusarium wilt than Flanders and NorLin, with immunity to rust race 371. AAFC Morden.

FO2107. Linseed flax, brown-seeded and adapted to the Black and Grey Soil Zones. Yields 10 percent higher than Flanders, with similar maturity and larger seed size (6.6 g per 1,000 seeds). Features increases in both iodine number and protein content. Better resistance to wilt than Flanders and NorLin. Immune to rust race 371 and higher levels of resistance to Fusarium wilt than candidate line FP2102. AAFC Morden.

FP2112. Linseed flax, brown-seeded, with 10 percent higher yield than Flanders in the Black and Grey Soil Zones and 12 percent higher yield in the Late-Seeded Co-operative Trial. Earlier maturity than Flanders,

with significantly greater seed weight (6.0 g per 1,000 seeds) and oil content. Lodging tolerance equal to Flanders, with immunity to rust race 371 and moderate resistance to Fusarium wilt. U of S CDC.

FP2119. Linseed flax, brown-seeded. Compared to Flanders, has equal yield and maturity across Western Canada, including earlier maturity in the Black and Grey Soil Zones and significantly greater seed weight (5.7 g per 1,000 seeds). Increases in iodine value and linolenic acid level. Lodging tolerance is equal to Flanders, with immunity to rust race 371 and moderate resistance to Fusarium wilt. U of S CDC.

BACKGROUND

PRRCG *in profile*

An overview of the PRRCG and how it works.

Mandate

The CFIA's Variety Registration Office makes all final decisions on which crop lines are approved for federal variety registration. It is the PRRCG's job to assess candidate crop lines before registration and advise the CFIA on which ones it believes should win approval. Part of this includes administering pre-registration tests across the region.

The CFIA relies on many recommending bodies across the country. The PRRCG's specific mandate includes crops targeted for Prairie production in four major areas: wheat, rye and triticale; barley and oat; pulse and special crops; and oilseeds. Crop lines that fall under this mandate are required to go through the PRRCG system before they can advance for consideration by the CFIA.

The PRRCG mandate is not permanent. The Variety Registration Office reviews the committee's work every five years before deciding whether or not to grant another five-year mandate. The PRRCG mandate was most recently reviewed in 1999.

Structure and membership

The PRRCG consists of an executive committee, main committee and four subcommittees: the Wheat, Rye and Triticale Subcommittee; Barley and Oat Subcommittee; Pulse and Special Crops Subcommittee; and Oilseeds Subcommittee. (Canola is covered by a separate Western Canada Canola/Rapeseed Recommending Committee, which operates independently outside the PRRCG.) Each subcommittee has three evaluation teams responsible for assessing merit in one of three areas: 1) breeding and agronomy, 2) disease, and 3) quality.

The PRRCG includes full voting members and non-voting associate members. Voting members are those with the expertise

to properly assess crop varieties, such as plant breeders and quality experts. Non-voting members typically include farmers, research centre administrators, extension specialists and others with a legitimate interest in committee activities.

The decision-making process

The PRRCG's annual meeting includes several steps:

Evaluation teams assess the candidates. The process begins with each evaluation team assessing the candidate crop lines for performance in its particular area of expertise – breeding and agronomy, disease, or quality.

The evaluation teams judge the candidates and assign one of four possible votes.

- Support – the candidate's performance is considered superior to current registered varieties.
- Do not object – the candidate's performance is considered similar to check varieties and meets the minimum performance criteria.
- Object – the entry is considered inferior to the check varieties and does not meet the minimum guidelines established.
- Abstain – expected only in the case of an openly declared conflict of interest or in the absence of information on which to base a decision.

Subcommittees vote to recommend. Evaluation team assessments are then discussed at a meeting of the full subcommittee, as a basis for the subcommittee's formal vote to recommend the candidates for registration or turn them down. Abstentions are expected only in the case of an openly declared conflict of interest. At this level, the voting is based on an overall assessment of the candidate, and is typically performed by a show of hands. However, each subcommittee can

decide on an appropriate voting method. For instance, the Wheat, Rye and Triticale Subcommittee used a secret ballot in 2002 and 2003.

Option to appeal. If a sponsor objects to the decision of the subcommittee, an appeal can be made to the PRRCG executive committee, whereby the executive votes and majority rules. A further appeal is also available, by which a three-person appeal panel is selected; one panel member is selected by the subcommittee chair, another by the sponsor and a third by the registrar of the Variety Registration Office. In both scenarios, the sponsor must pay a fee for the appeal.

Recommendations approved by the PRRCG are forwarded to CFIA. Once the subcommittee has made its recommendations for registration and the general membership has approved the subcommittee's actions, the secretary of each subcommittee sends the registration recommendations to the CFIA's Variety Registration Office.

Special cases

These alternatives to full registration are also available.

Contract registration. Contract registration is an alternative to the usual variety registration process. Five-year contract registrations are available for crops that fall outside the normal traits of a particular crop class, but have a specific end-use. The sponsor must show that 1) an end-user exists for the crop and 2) that a closed production system is achievable, to prevent the crop from negatively affecting other crops in the system.

Interim registration. Not all lines are put forward for full registration. Another option is "interim" or temporary registration, which is typically requested to allow enough seed production for additional testing of quality traits. For example, a malt barley line may require seed for commercial plant scale testing, or a wheat line may require seed for milling quality testing.

Interim registration is typically granted for an initial two years, with potential for an additional two years following further review by the relevant subcommittee and CFIA.

Deregistration. The PRRCG also provides a forum to recommend the deregistration of varieties. This is often requested by the developers of a variety, in cases where a reduction in market demand or susceptibility to a new problem have lowered the variety's potential below a threshold of viability.

Technical Review Assistance

Meristem Land and Science gratefully acknowledges the following crop experts for their assistance in reviewing this 2004 PRRCG Report for technical accuracy. The PRRCG Chair reviewed components dealing with PRRCG executive action. Each subcommittee section was reviewed by the chair of that subcommittee. The technical review support of the following people is gratefully acknowledged.

Dr. Mario Therrien, PRRCG Chair
Eric Klassen, Pulse and Special Crops Subcommittee Chair
Dr. Scott Duguid, Oilseeds Subcommittee Chair
Dr. Michael Edney, Barley and Oat Subcommittee Chair
Dr. Stephen Fox, Wheat, Rye and Triticale Subcommittee Chair

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Meristem Information Resources Ltd.
 12 - 3109 Palliser Drive SW
 Calgary, Alberta, Canada T2V 4W5
 Phone: (403) 543-7420
 Email: info@meristem.com
 Web: www.meristem.com

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