

Message from the President

There is considerable interest in CSBA as registrar of purebred pigs for local and international marketing. CSBA has managed well financially this past year, with quite a number of registration papers and transfers relative to the electronic litter registrations of purebred pigs tested through the CCSI program. We should be able to manage well for the next few years.

I welcome Jean Lévesque to the CSBA Board. Jean is replacing Madeleine Hayeur as Director from Quebec. I would like to express my heartfelt appreciation to Madeleine for her unwavering efforts as past president of CSBA. We will miss Madeleine's valuable input to the Board based on her long experience as a purebred pig breeder and her accurate memory for past events and their effect on present decisions. Thank you, Madeleine.

A reminder that the CSBA annual meeting will be held on March 26, 2008 in Stratford, Ontario in conjunction with the OSI meeting. While the Board will meet separately from the OSI AGM, we will have a joint technical session on swine genetics for all to attend. I look forward to a large attendance from local Ontario breeders.

For minor breeds of pigs, other than Yorkshire, Landrace and Duroc, registrations will continue at a reduced rate. This is a boon to breeders of Berkshire, Large Black, Tamworth, Hampshire, Pietrain and Lacombe pigs. Board members decided that there is good reason to maintain the minor breed registrations in Canada.

I also wish Jane Davy all the best in her retirement from CLRC in April. Jane has been the primary activist on the swine file over more than the past thirty years. She has been easy to work with in managing the large files of registrations and transfers we've had in recent times. We'll miss her experience but are assured that Lauralee Mills has been trained by Jane to do every bit as well. It won't take too long for everyone to get as familiar with Lauralee as we were with Jane. Thank you, Jane!

Keep your spirits up during these trying times in the pork industry! Export sales have been the blessing in recent months for many breeders in gaining some small margin for their breeding pigs.

Sincerely,

Alfred Wahl
President, CSBA

Annual General Meeting March 26, 2008

This year's CSBA AGM is being held on Wednesday March 26, 2008 at the Arden Park Hotel in Stratford, Ontario. We thank Ontario Swine Breeders Association for sponsoring this year's meeting.

Ontario Swine Improvement (OSI) will be having their Annual Meeting at the same location in the afternoon of March 26th, 2008. Lunch will be provided courtesy of OSI and we thank them for this hospitality.

Amendments to the Constitution

Please note that there are constitution amendments that have been proposed Alternate Herd Book. Please see details at the end of this newsletter.

Canadian Swine Breeders Association Annual General Meeting

Date: March 26, 2008

9:30am to Noon
CSBA general meeting and
awards presentations

Noon
Lunch hosted by Ontario Swine Improvement

1:00pm to 4:00pm
Ontario Swine Improvement AGM

Location: Arden Park Hotel
552 Ontario Street
Stratford, Ontario
Canada N5A 6W4



Reservations: 1-877-788-8818

Email: ardenpk@orc.ca **Web:** www.ardenpark.on.ca

Please pre-register to help us in planning. The pre-registration form is on page 5 of this newsletter.

Opportunities for collaboration with China

During my visit to Heilongjiang Province in China in January, I was able to make a presentation about the Canadian pork industry to some thirty interested pork producers in Jiamusi City. These producers all have more than one hundred sows in their herds. The meeting was sponsored by the Jiamusi City Animal Husbandry Bureau and its Technology Transfer Centre in conjunction with the SenYu-Polar joint venture breeding farm that has been filled there with 600 Canadian boars and gilts. Along with Albert Eringfeld, a Director of the Canadian Swine Exporters Association, we were able to make several presentations showing the results of pigs being tested under the Canadian Centre for Swine Improvement program as well as the availability of superior Canadian swine genetics in boar semen. There was a question from one of the breeders asking how it was that the Canadian pigs could be expected to maintain their improved status, since in the past the imported genetics seemed to get lost over time? My answer was that the pigs could be kept on an improvement program through the institutions available in Canada used regularly by Canadian swine breeders.

The producers were interested in improved genetics, since the Heilongjiang Animal Husbandry and Veterinary Bureau has financial support programs for gilt purchases and artificial insemination. The Province produces more than 25 million hogs each year but the intention is to produce twice that number within the next few years. Heilongjiang has a huge grain production capacity; growing corn, wheat and soybeans as parts of the crop rotation. These grains are sent to other Provinces for their pork production, along with some 15 million hogs and feeder pigs exported even as far as central Sichuan Province.

Jurgen Preugschas (Five Lakes Farms) and I have been appointed as senior advisors to the Heilongjiang Swine Improvement Association. This will represent a close relationship between the Animal Husbandry and Veterinary Bureau and the Canadian Centre for Swine Improvement for the transfer of technologies and development of a testing program for boars in the Province. This will also present an opportunity to maintain the Canadian pigs in the CCSI database and *eFarm* management program for tested pigs in the SenYu-Polar JV and to establish a Canadian identity for pigs registered in the CSBA herdbook in CLRC.

There will be other Canadian breeders marketing breeding swine to China, Russia and other countries that will take advantage of our Swine Improvement Program and Pedigree Registrations to establish "Canadian" herds in those countries, rather than just selling the pigs away.



Alfred Wahl, CSBA president
Banner reads: Canada Breeding Swine Association President Alfred Wahl Lecture



Pork producers from Jiamusi City



Canadian Swine in China

Development of a National DNA Bank for Swine

CSBA is playing a leading role in the development of a national DNA databank for swine. A national DNA bank is an efficient way to use the opportunity provided by genetic research and to test and utilize promising candidate genes, functional mutations and markers in current stage and in future. It allows for faster genetic progress in specific traits and taking advantage of future discoveries in the area of genomic research.

New DNA markers for growth, feed efficiency and meat quality are now available in Canada

DNA markers to improve the genetic performance of swine breeding herds originally developed and patented at Iowa State University, are now available for Canadian breeders and producers. Markers are SNP (single-nucleotide polymorphism) based and allow for screening of many traits at an affordable cost. To achieve the greatest genetic impact, the service provider, DNA LandMarks, recommends running all of the following tests in combination.

MC4R (US patent no. 6,803,190): Melanocortin-4 receptor associates with growth, feed intake, backfat and lean meat yield. Allele G (encoded for D298) delivers leaner growth, less back fat and lower feed intake. Allele A (encoded for N298) increases the average daily gain and shortens the number of days to market. Breeders can select either lean growth or fast growth depending on the market demands or line characteristics.

PRKAG3 (U.S. patent no. 6,919,177) : Protein Kinase Adenosine Monophosphate Activated γ 3-Regulatory Subunit. The RN- allele of this gene discovered in Hampshire was well known to have a negative impact on cured cooked ham yield. A new allele encoded for 199I (allele A), which segregates in all commercial breeds, is associated with lower glycogen content, higher ultimate pH, lower drip loss and favorable meat color in ham and loin.

CAST (U.S. patent application no. 20,070,172,848): This genetic test monitors two genetic variations impacting the calpastatin gene. The A alleles for both SNPs (encoded 249K & 638R) result in improved meat quality including increased juiciness and tenderness and reduced chew score and cooking loss.

HMGA1 (U.S. patent no. 7,244,564): High mobility group AT-hook1 associates with backfat thickness. Allele T from a T/C SNP can be selected for lower backfat thickness.

CCKAR: Cholecystokinin type A receptor associates with feed intake and growth traits. Allele G from an A/G SNP can be used for higher feed intake and faster growth without significant impact on fatness.

Many factors may influence animal performance including genetic background and environment factors such as animal nutrition and management. The described marker effects are not guaranteed to be observed in any particular population.

For more information, contact: Charles Pick, Business Development Manager Email: pickc@dnalandmarks.ca
Telephone: 1 (450) 358 2621 ext. 123,
www.dnalandmarks.com

Science and Innovation Strategy for the Pork Value Chain

The Pork Value Chain Roundtable is developing a science and innovation strategy for the Canadian swine industry. The strategy aims at enhancing the competitiveness of the Canadian swine industry in domestic and international markets through science and innovation. The key priority areas include animal health, meat and carcass quality, food safety and bio-security, productivity and efficiency, environmentally responsible production, animal welfare and bio diversity to enhance industry's ability to compete and adapt to future changes. The strategy emphasizes the need for transferring research results into actual tools that producers can use. There is a need for a national mechanism to interact with the industry, government and research institutions, and help to put the plan into action by assisting in necessary development for effective use of the research results by industry members. CCSI is leading the effort working closely with industry organizations.

Canadian Pig Improvement through Genomic Science

Canada has been a world leader in swine genetics for more than 20 years, and Canadian genetics has been a fundamental driver in the Canadian pork industry becoming one of the largest exporters in the world. This has been achieved through advances in leanness, meat quality, growth rate, feed efficiency and litter size. Canada also has natural advantages such as lower hog densities and a climate that provides a healthier production environment, larger tracts of arable land. It should continue to be a world leader in pig genetic improvement if it is innovative and embraces new technology such as genomics.

World markets are now demanding new advances in traits that are not easily addressed by traditional approaches. These are difficult and expensive to measure traits, traits that can best be managed by identifying the gene variants that, in turn, explain variation in them, and then harnessing their diagnostic capability to provide industry with the means to develop options for product development. Genomic technologies are developing at a rapid rate; however, there is a worldwide need to develop phenotypic information for these new demand traits in order to exploit the power of the technology. This requires large numbers of animals in commercial environments in order to provide the necessary experimental power.

CCSI has recently submitted a proposal for the Business led Network Centres of Excellence Competition. The goal of the proposed Canadian Pig Improvement through Genomic Science (CanPIGS) network is to conduct research into strategic priority areas identified by the Canadian Pork Value Chain Roundtable and the swine genomics community to strengthen the competitive

position of the Canadian swine industry. The proposed network would create a critical mass of Canadian genomics research able to work with industry to help address its strategic research priorities. These priority areas have been identified by the Canadian Pork Value Chain Roundtable and genomics provides one of the best opportunities to strengthen the competitive position of the Canadian swine industry.

The network addresses this need by bringing together the Canadian animal genomics community with industry in order to create a unique partnership with the potential to take the next step in swine genomics. The timely creation of this new approach is critical if Canada is to remain competitive in pig and pork production. It offers the potential to make Canada the world leading centre for swine genomics and genetics in the next decade.

Government support programs recently announced for the Canadian Swine Industry

Just this past week, the Federal Government announced changes to the Agricultural Marketing Production Act (AMPA) which would result in a greater amount of funds available for livestock producers by means of the advanced payment program (APP). The proposed amendments to the APP will provide easier access to immediate cash flow by:

- Removing the requirement for livestock producers to use a Business Risk Management program such as AgriStability as security for a cash advance and allowing producers to use inventory as security. This brings the treatment of livestock more in line with other produced commodities.
- Adding "severe economic hardship" as a condition to offer emergency advances, on the recommendation of the Minister of Agriculture and Agri-Food and the Minister of Finance.
- Revising the security requirements for emergency advances and increasing the emergency advance available to producers from a maximum of \$25,000 to \$400,000 in conditions of severe economic hardship.

If all the producers would take advantage of this program, up to 3.3 billion dollars in advanced payments would be made available. Additionally, the Canadian Pork Council (CPC) was given 50 million dollars to deliver a cull breeding swine program. This initiative will help in restructuring the swine industry. To learn more about these initiatives and changes announced by the government, please visit the Agriculture and Agri-Food Canada website at www.agr.gc.ca.

Questions or Comments about PIC lines?

Do you have questions or comments about the possible registration of PIC lines under the umbrella of CSBA? Are you wondering what other members are thinking about this issue? The directors of CSBA have had much discussion on this topic, most recently at a meeting with PIC. Information has been sent to members in the mail, but it is not an easy issue for members to fully understand. Even among the directors, there are very different views of what would be best for CSBA.

Following the most recent meeting between CSBA directors and PIC, PIC has suggested setting up an on-line forum in order to give opportunity for all members to ask questions and provide input. A copy of the letter from PIC is included for information. If many members participate in an on-line forum, this would ensure that enough members have good information before taking a final decision. Therefore, an on-line forum has been established for CSBA members to submit questions or comments. Answers will be provided by CSBA and/or PIC as appropriate for all members to see. The forum will be moderated by CSBA, and only current members will be permitted to make submissions. To access the forum, and to submit your own question or comment you will need to enter a password. To obtain a password, please contact the CSBA office by email to info@canswine.ca or call (613) 731-5531.

Otherwise, you can simply see what others are thinking. You may also contact your representatives or the CSBA office with questions or comments. For information, the current members of the CSBA Board are:

Donald MacDonald, Atlantic Canada
André Auger, Quebec
Jean Lévesque, Quebec
Line Théroix, Quebec
Don Dietrich, Ontario
Scott Robinson, Ontario
Jim Long, Manitoba/Saskatchewan
Alfred Wahl, Alberta/B.C.

As indicated in previous correspondence, a vote on acceptance of PIC lines for registration will require a mail in ballot. The forum is for information purposes. Acceptance of any new breeds requires a mail ballot where at least 25% of the membership votes and of these, at least 2/3 vote in favour of accepting the new breed.



**Pre-Registration for CSBA AGM, Wednesday March 26, 2008
Arden Park Hotel, Stratford, Ontario**

Date: March 26, 2008

9:30am to Noon

CSBA general meeting and
awards presentations

Noon

Lunch hosted by Ontario Swine Improvement

1:00pm to 4:00pm

Ontario Swine Improvement AGM

Location: Arden Park Hotel
552 Ontario Street
Stratford, Ontario
Canada N5A 6W4

Reservations: 1-877-788-8818

Email: ardenpk@orc.ca

Web: www.ardenpark.on.ca

To help us in planning, please contact Francine Roy to pre-register:
Tel: (613) 731-5531 Ext. 21 or email francine@canswine.ca, or fax this form to (613) 233-8903

Name:

Address:

Telephone:

Email:

If others will accompany you, please specify the total number of people including yourself: _____

Number attending lunch and the Ontario Swine Improvement (OSI) AGM: _____

Thank you to Ontario Swine Improvement for providing lunch.

Pre-registration by **Wednesday March 19, 2008** would be appreciated.



10 January 2008

Brian P. Sullivan
General Manager
Canadian Swine Breeders Association
Central Experimental Farm
Building #54, Maple Drive
Ottawa, Ontario
K1A 0C6
CANADA

Dear Brian:

Thank you for taking the time to meet with us on Thursday December 20th. We appreciate the candid input from you and each of the Directors. Although it is clear that there is still some resistance within the CSBA to PIC joining the Association, we were encouraged by the willingness of most Directors to have an open mind.

As you know, PIC's preference is to become a CSBA member. From PIC's perspective, it would be to the Canadian swine breeding industry's benefit to work together to present a united front, both domestically and internationally, under the umbrella of a single industry association. Presenting anything other than a united front may have the unfortunate effect of confusing the marketplace, which would be detrimental to the Canadian industry as a whole.

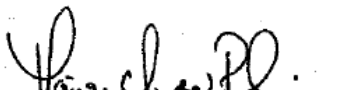
Of course, for this to be a viable option the questions and concerns of CSBA Directors and members must be addressed. It is PIC's understanding that most of the issues to be addressed are technical (e.g., are the PIC lines at issue new breeds, strains of existing breeds, evolving breeds), administrative (e.g., what steps must be taken to have PIC join the CSBA), and "consequential" (e.g., what are the implications of PIC membership for the CSBA as an Association, and for individual CSBA members).

To facilitate a full and objective assessment of these issues by CSBA Directors and members, PIC would like to propose the establishment of an online forum where CSBA members can submit questions and PIC (and the CSBA) can respond. This approach would help to ensure that CSBA members receive the information that they need to make an informed decision. PIC is committed to working with the CSBA to correct misinformation and to dispel misunderstandings.

To the extent that one or more members may object to PIC joining the Association based on issues other than those listed above (e.g., past personal relationships), there is not much that PIC can do in the short-term to resolve such issues. However, PIC hopes to have the opportunity to overcome these types of objections, over the longer term, by working collaboratively to further the objectives of the CSBA and extending goodwill to all CSBA members.

While PIC has no choice but to continue pursuing its other options while working to secure CSBA membership, it is only doing so as a contingency plan in case its application is rejected or the membership process takes too long. PIC's first choice is to become a CSBA member, and PIC is more than willing to work cooperatively with the CSBA to make this happen.

Thank you, again, for your consideration of PIC's position, and I look forward to hearing from you shortly regarding PIC's proposal for an online forum."


Marje-Claude Poulin, DVM DA
Veterinarian

**By-law amendments as presented to
The general membership at the CSBA Annual General Meeting
Stratford, Ontario, March 26, 2008**

Proposed amendment 1. Be it resolved that Section XXIII, paragraph 7, section (1) which reads:

- (1) A parent contributing to the make-up percentage of grading-up animals must be purebred registered stock, and officially recorded as such in the appropriate herd book or books.

be changed to read:

- (1) ***The percentage purity for an animal indicates the percentage of ancestry tracing back to the foundation stock, and is calculated as the average percentage purity of the sire and dam.***

Reasoning:

The lack of use of the Alternate Herd Book so far suggests that it is not of value to members in its current form. A primary concern is that the current method for calculation of purity does not reflect the true level of purity within a herd. The proposed method for calculation of purity is technically correct and is commonly used by other breed associations. This change would allow members with non-registerable animals to maintain and manage parentage on their animals, provide Alternate Herd Book certificates that reflect the true level of purity, and to continue to increase the level of purity through the use of registered animals. It would also allow CSBA to represent a larger proportion of Canadian breeding stock and potentially increase membership and revenue to help sustain the association.

Proposed amendment 2. Be it resolved that Section XXIII, paragraph 7, section (5) which reads:

- (5) Once the animal has reached the 94% level it must exhibit the specific breed characteristics.

be amended to read:

- (5) Once the animal has reached the 94% level it must exhibit the specific breed characteristics, ***and progeny from 94% animals shall be eligible for entry into the regular registry, provided the progeny meet the specific breed characteristics and that one of the parents of the 94% animals and the other parent of these progeny be purebred registered stock, and officially recorded as such in the appropriate herd book or books.***

Reasoning:

The proposed requirement for entry into the regular registry is a minimum of almost 97% (31/32) trace back to registered ancestry. In addition to the high percentage, it also requires that the last 2 generations have a purebred registered parent. In a practical sense, this is very close to equivalent to animals in the regular registry. This is more stringent than the entry rules used by many other breed associations in Canada and internationally, including some foreign associations that are recognized by CSBA. The Animal Pedigree Act requires only a minimum of 87.5% (7/8). The above change would allow the alternate herdbook to be more effectively used as a standardized way for non-participant breeders to work back into the official breeding population, and would give opportunity to increase the effective population size and choice of bloodlines for all members. This could be useful for breeders of all breeds, but especially for those with rare breeds. It would also offer a more inclusive approach to represent a larger proportion of Canadian breeding stock.

Proposed amendment 3. Be it resolved that Section XXIII, paragraph 7, be amended to include the following new section:

- (7) All descendants of animals from the Alternate Herd Book that are accepted into the regular herd book will be designated on the certificate of registration as having been upgraded from the Alternate Herd Book
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Reasoning:

Clearly designating the upgraded animals would make it practical for members who wish to continue to breed only with animals that trace 100% back to foundation stock. Note that this amendment is only relevant on acceptance of the proposed amendment 2.

As of March 2008, the section of the by-laws regarding the Alternate Herd Book currently reads:

7. THE ALTERNATE HERD BOOK

The Alternate Herd Book will exist separately from the regular herd book, (Canadian National Record for Swine), which is used to register purebred animals. The Alternate Herd Book will permit grading-up of animals in percentages to a recorded maximum of 94%.

- (1) A parent contributing to the make-up percentage of grading-up animals must be purebred registered stock, and officially recorded as such in the appropriate herd book or books.
 - (2) An animal shall be able to achieve recorded purity to 94% (15/16) but never recorded as purebred.
 - (3) The animals shall be registered in the Alternate Herd Book but not in the regular registry, and the two herd books shall remain separate.
 - (4) The animals shall have a registration paper, being of a different colour than the registration paper for purebred animals; and such a paper will state their recorded percentage in the alternate herd book.
 - (5) Once the animal has reached the 94% level it must exhibit the specific breed characteristics.
 - (6) The Alternate Herd Book shall always operate under the same structure as the regular Herd Book pertaining to: Memberships, records, identification, applications and fees.
-