



Joint Information Notice, by Agriculture and Agri-Food Canada and Bourgault Industries Ltd.

Agriculture and Agri-Food Canada (AAFC) and Bourgault Industries Ltd. have resolved a legal dispute, which arose over the reporting of the results of a three-year agricultural research study conducted by AAFC. The study compared the effect of nitrogen fertilizer management, which included side banded and mid-row banded nitrogen placement, on crop production under varied conditions in Saskatchewan.

The parties were able to reach agreement on a number of important points, which helped to resolve the dispute.

The parties agreed that the results of the study supported the conclusion that in most growing and soil conditions, both mid-row and side band systems can be expected to provide similar agronomic results.

The parties agreed, however, that side band systems have higher seed-bed disturbance compared with mid-row band systems, and that under dry conditions, this has the potential to reduce or delay crop emergence or reduce yield. This underscores the importance of proper seed placement and suggests that the higher seed-bed disturbance inherent to side band openers may at times prevent good placement and lead to increased seed-bed drying.

The parties further recognized that mid-row band systems ensure seed-fertilizer separation and eliminate the risk of nitrogen damage to seeds or young plants. There has been a concern expressed by some that with a mid-row system, access to nitrogen may be delayed in dry soil conditions with low residual nitrogen. This likely occurs infrequently and would pose minimal risk under most prairie conditions. In any event, there are a number of measures that could mitigate that risk, including adjusting the depth of placement of the mid-row nitrogen band to ensure that it is in moisture.

PAMI's Research Update 768, which had previously been released as a Preliminary Report, will now be concluded and released as a Final Report. [www.pami.ca]

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Questions and Answers Regarding Agriculture and Agri-Food Canada and Bourgault Industries Ltd. Joint Information Notice and the finalized version of PAMI Research Update #768

Below you will find some questions and answers that are intended to provide some additional information on the recent resolution of a legal dispute between Agriculture and Agri-Food Canada and Bourgault Industries Ltd.:

Q: When did Bourgault file its lawsuit against Agriculture Canada and PAMI?

A: Bourgault filed a statement of claim on February 27 of 2008, after nearly 2 years of efforts of negotiating with Agriculture Canada and PAMI to try to resolve our differences, out of court.

Q: Why did Bourgault launch the lawsuit?

A: The lawsuit was in response to an article in the *Prairie Steward* and a second article that was published in the *Western Producer* in spring 2006. These articles contained information that Bourgault believed was untrue, inaccurate and was thus damaging to Bourgault's reputation and products. Bourgault's goal with the lawsuit was to set the record straight.

Q: What statements did Bourgault claim were untrue and damaging to the company?

A: Essentially, the position in the articles was that a three year Agriculture Canada study had shown that there were no agronomic differences between the side-banding and mid row banding systems. This was different than Bourgault's position, which was

that the study had indeed revealed performance differences in certain dry soil conditions that could negatively impact crop outcomes including emergence and yield. Additionally, the position taken in the *Prairie Steward* article was that the study had shown that in dry conditions, mid row banding could deny the plant early access to nitrogen, which we know does not occur unless the Mid Row Banders® are improperly set. Although there were other comments made in the article that were concerning to Bourgault, these were the issues that were the most problematic to Bourgault. Thus, Bourgault's goal was to set the record straight on those key points.

Q: Did the resolution of the dispute address the issues to Bourgault's satisfaction?

A: Yes, we are pleased that the case has been resolved. The key issues that concerned Bourgault were addressed. They are:

- 1) *The study revealed important performance differences in dry conditions; and,*
- 2) *With Mid Row Banders®, nitrogen stranding in dry conditions can be prevented by depositing the nitrogen into moist soil.*

Q: The Joint Information Notice states that you both agreed that both systems supported the conclusion that in most growing and soil conditions, both system can be expected to produce similar agronomic results. Do you agree with this position?

A: Yes, it is clear that, in normal growing conditions, side-banding and mid row banding typically yield similarly. In fact, Bourgault's position is that every seeding system will work well in normal growing conditions. Rainfall shortly after seeding essentially makes all of the systems perform equally! However, when moisture is limited, emergence tends to be reduced. Whenever stand densities fall below the "Minimum Threshold" for the crop, experience has shown that there is a high probability that yields will be reduced. It is Bourgault's position that by minimizing soil disturbance in the seedbed area, which is best accomplished using Mid Row Banders®, there will be maximum amount of moisture in the seedbed to produce germination, which can have an impact on yield results in dry years.

Q: So is it now Bourgault's position that its concerns have been properly addressed?

A: Bourgault thinks that Agriculture and Agri-Food Canada's and Bourgault's Joint Information Notice and the "finalized" PAMI Research Update #768 make it clear that stranding of the nitrogen in dry soil, can be prevented by setting the Mid Row Bander® to operate in moist soil, which is just the normal way of operating the bander. The Joint Information Notice also confirms that the

two systems can perform differently and these performance differences can have an impact in dry soil conditions. As per the Joint Information Notice: "The parties agreed, however, that side band systems have higher seed-bed disturbance compared with mid row band systems, and that under dry conditions, this has the potential to reduce or delay crop emergence or reduce yield. This underscores the importance of proper seed placement and suggests that the higher seed-bed disturbance inherent to side band openers may at times prevent good placement and lead to increased seed-bed drying."

Q: Does Bourgault feel that it has been vindicated by this outcome?

A: Bourgault is pleased that the dispute has been resolved and that its concerns have been addressed. However, unfortunately, Bourgault knows from its many years of being in business that once people have formed their beliefs, there is little that can be done to change those beliefs short of them experiencing a major traumatic event caused by their seeding system such as experiencing a major crop failure that would have been avoidable. Bourgault thinks that it is clear that mid row banding is a safer seeding system that can provide significant benefits to the farmer in dry soil conditions. However, some farmers will continue to believe that mid row banding places the nitrogen too far away from the seed in spite of our being able to provide evidence to the contrary.

Q: What do you think the take home message from the Joint Information Notice and the finalized PAMI # 768 report will be for famers?

A: In a nutshell, mid row banding can provide advantages in dry soil conditions and does not strand nitrogen when used in dry seeding conditions unless the banders are not set to operate in moist soil. Thus, the principal difference between the two systems relates to risk management rather than to mid row banding having an absolute advantage on a year-to-year basis.

Q: Besides providing seed safety and minimizing moisture losses that tend to promote greater levels of emergence, do Mid Row Banders® have other advantages over side-banders?

A: Mid Row Banders® will produce a “root dominant crop”. This means that with a mid row banding system, the root system will be more extensive than with a side-banding system simply because the roots of the mid row banded crop have to extend further to access all of the nitrogen that is contained in the band. However, the root system will not only access the nitrogen that is in the soil, it will also access all of the other nutrients that are present as well as the moisture that is available in the soil. Thus, a root dominant crop is more resilient in drought conditions; whereas, in wet conditions, even an underdeveloped root system will provide the crop with all of the moisture that it requires.

Q: Is it hard to determine whether or not a mid row banded crop is more root dominant crop than one that is side-banded?

A: No, it is very easy to see. All one needs to do is dig up a few plants from a crop seeded by each system and to compare the extent of the development of their root systems.

Q: It is my understanding that Bourgault Industries Ltd. now does its own agronomic studies related to seeding systems?

A: Yes, since 2008, Bourgault Industries Ltd. has developed a large data base of information on side-banding and mid row banding. Its team of agronomists and technicians has seeded more than 3500 plots from points as far south as Pierre, South Dakota. Plots were also seeded in Minot, North Dakota, Odessa (near Regina), Saskatchewan, and St. Brieux, Saskatchewan. The plant stand counts and yield measurements were contracted out to independent agronomists and independent research institutions in Canada and the U.S.A. By moving the fertilizer placement coulters to the side of the seed in 1" increments, the trials compared plots side-banded at 1", 2", 3", 4" and 5", as well as plots that were mid row banded (5" to the side of the seed but between every second row) to develop a recommended safe distance at which the fertilizer can be side-banded to avoid significant stand reductions with canola, in normal conditions. A summary of the results of this work can be found in Bourgault's Agronomy Handbook, which can be downloaded from Bourgault's website at: www.bourgault.com. ■