HONEY BEE MANUFACTURING LTD. CANADA

The Australian Competition & Consumer Commission
Agricultural Machinery Project

Industry Submission

March 2020

Agricultural machinery: After-sales markets

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The Australian Competition & Consumer Commission Agricultural Machinery Project

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In February 2020 the ACCC released a discussion paper which identified a number of initial concerns about issues which may be harmful to competition and to purchasers of agricultural machinery, specifically that:

- *access to independent agricultural machinery repairs is limited*
- *farmers may lack recourse in the event of a problem with their machinery*
- *agreements between manufacturers and dealers may limit access to repairs*
- *data ownership and management may raise privacy and competition concerns.*

At the time of publishing the discussion paper, the ACCC has not formed a view about the prevalence of, or harm stemming from, the issues and practices outlined. The ACCC is seeking further information and feedback from stakeholders, via a survey and submissions, to better understand the extent of the concerns identified.

Document notes

Honey Bee Manufacturing Ltd. [www.honeybee.ca] is an Original Equipment Manufacturer [OEM] Short Line manufacturer of Agricultural quality whole implements, including Combine and Swather Headers, Tillage equipment and other products that serve farms in Canada and around the world. Honey Bee has about 160 employees and is active with innovative Intellectual Property [IP] that is developed in-house by our staff in conjunction with our customers. The Honey Bee brand is exported to all continents. Additionally, Honey Bee designs and manufactures products for Full Line OEM brands.

The ACCC project is very interesting to us on a few levels. Your four main points are very important to farmers, and you touch on a few other key aspects in your discussion document, one of which is equipment interoperability. Honey Bee is involved in promoting right to repair and right to interoperate internationally. This needs to be re-secured and protected in our cultures and laws. Thank you for your part in moving this forward.

In Australia, we are partnered with Muddy River Agricultural Pty Ltd who represent our products. We also work with them on new developments specifically for the Australian market.

Honey Bee exports products to 26 countries and understands the requirement for ease of access to part and repair information and the use of common parts that are more readily available globally. We often supply Computer Aided Design [CAD] files for local Computer Numeric Controlled [CNC] fabrication of parts to facilitate quick repair turnaround times abroad.

In Canada, agricultural equipment manufacturers are bound by law to supply repair parts for up to 10 years after a product is retired. At Honey Bee, we often supporting 20+ year old product. We do this intentionally, as we are owned by farmers and understand the value of long-lasting products and minimizing annual farm input costs, including equipment.

In the remainder of the document, I will address your paper in the sequence you have presented it. Thank you for the opportunity to speak into this effort.

Scott Smith/Engineering Dept.

2021 UPDATE

The original version of this paper was penned in March 2020.

At that time, actual manifestations of expected OEM behaviour had not been seen in the market. We knew it was coming, but had no tangle evidence of it to point to. This changed in July 2020, with the public release of the John Deere X9 combine.

Up until this release, any implement could be adapted to any piece of equipment. Farmers are always innovating on their farming practices and the resulting changes to their equipment. Smart players in industry will track this and meet the demand. With the release of the X9, for the first time in agricultural history, a company [John Deere] has taken the positon to create and release to market, a product that breaks the symbiotic relationship between the farmer, the innovative short line, and the equipment OEM.

This is known in the industry as the “brand purity push”, where major OEMs go out of their way to ensure that only their brand is used on the farm. This pressure is exerted down to their independent dealers to present to the market. Many dealers were not open to this, and continued to offer other product offerings as demanded by the farmers.

To prevent this, OEMs are moving to use technology as a weapon against those who would prevent brand purity.

In western Canada, JD dealerships represent 65% of the market. For Honey Bee, the move to exclude us on JD products, will result in a loss of market opportunity to the same 65% value. To make this clear, on every other brand of combine sold, 95% of them are sold with a shortline header from a different company [e.g. Honey Bee, MacDon, etc.].

The shortline industry exists because we add value to the farm. If this wasn’t true, we wouldn’t exist. The same is true for independent repair. OEM dealers are not able to meet all the technical support requirements in a timely manner. The capacity is just not there. The skills to meet the shortfall exist in rural communities, adjacent to or on the farm.

In most countries, the agricultural industrial base is distributed between many small communities that benefit from the industry in many ways. As you will read below, this is true for Honey Bee also. Allowing and providing opportunity for all citizens, regardless of location, to participate in the economy is a must. When companies go out of their way to prevent this, action needs to be taken.

I applaud the ACCC for their work on this important matter, and hope this document helps you move closer to a solution for Australians.

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Contents

Agricultural machinery: After-sales markets ..... **ii**

Document notes ..... **ii**

2021 UPDATE ..... **iii**

Contents ..... **iv**

Executive Summary **1**
Honey Bee Introduction 1
Honey Bee Industry Observations 1
Honey Bee Context 2

Industry competition and consumer issues **3**
After-sales markets 3
Agricultural machinery is expensive and purchaser rights are limited 3
Agricultural machinery is increasingly computerised and complex 4

Access to independent agricultural machinery repairs is limited **5**
Purchasers face restrictions in using independent repairers 5
Diagnostic software tools, technical information, and service manuals 6
'Genuine' parts are restricted to authorised dealers 6

Farmers may lack recourse in the event of a problem **7**
Purchaser engagement with warranty terms and conditions may be low 7
Warranties are not commensurate with consumer guarantees 8

Agreements between manufacturers and dealers may limit access to repairs **8**
Geographical restrictions on dealerships may limit competition for repairs 8
Dealership agreements may contain unfair contract terms 8

Data ownership and management may raise privacy and *competition issues* **9**
Data exploitation 9
Data tethered products 9

Intentional blocking of equipment interoperability raises competition issues **10**
The agricultural equipment ecosystem 10
Full line manufacturer 10
Full line dealer 10
Short line manufacturer 11
Short line innovation under lock 11
Open interoperability 11

Concluding remarks **12**
Harm to Farmers 12
Harm to innovation 13
Harm to economy 13
OEM role in solution 14
ACCC role in solution 14

Appendix A: **15**
The Agricultural Implements Regulations, Saskatchewan, 2019 15

Executive Summary

Honey Bee Introduction

Greg and Glenn Honey grew up on a farm in Bracken, Southwest Saskatchewan [100+ years in operation]. In 1979, they started building their own equipment to meet their own needs on their farm, the first major project being a 425 Horse Power tractor.

From a 67' self-propelled swather to a power-unit sprayer combo, they built or adapted nearly everything that they needed for their farming practice. Naturally, the duo began marketing some of their products. The most popular among these was the Grain Belt Header, which offered increased capacity, better cutting, and better feeding. Its rugged and simple design also ensured that the product would be a staple on farms for years to come.

In the fall of 1987, the Grain Belt platform was growing in popularity, so they decided to make the move to Frontier, Saskatchewan. Their new location had enough space for increased production capacity and a product line expansion. Today, Honey Bee has over 100,000 square feet of production and warehousing space, enabling them to provide customers from around the world with a diverse offering of draper platforms for a wide variety of crops and conditions.

By Farmers for Farmers. Honey Bee is evolving the tradition of the draper platform from the Grain Belt and is setting its sights on the future through the new AirFLEX platform, which carries forward the simple robust design of the Grain Belt, while meeting the needs of today's producers. Honey Bee has come a long way from those days back on the farm. With a strong commitment to product research and development, Honey Bee's objective has always been to manufacture equipment that farmers want and are happy to own.

Honey Bee is a small company, with 160 employees from 9 surrounding rural communities in our area.

We are here: https://goo.gl/maps/McMM4VcNAs5oWed27

Honey Bee Industry Observations

This document is one of many that I have been compelled to write. Due to our recent [early 2019] awareness of factors seemingly beyond our control as a company to mitigate, we are forced into action to protect our right to innovate for our markets. The factors are those that are leading our industry towards an anti-competitive marketplace, due to positions being taken by key industry players to block 3rd party participation onto their product offerings. Honey Bee is considered a **Short Line Manufacturer** [**SLM**].

We are considered a Short Line manufacturer, because we offer a partial portfolio of products, in respect to the full offering available. **Full Line manufactures** [**FLM**] are able to offer a full product spectrum for the markets that they participate in. Both Full and Short Line manufactures are **Original Equipment Manufacturers** [**OEM**], because we both produce whole good products. Parts and accessory manufacturers are considered Aftermarket Manufacturers.

Short Line manufactures are represented in several industrial sectors, including: Agriculture, Construction, Oil/Mining, and Forestry. This document is valid for all these sectors, with our specific experience being in Agriculture. This document is written from the Agricultural perspective.

Implements are not stand-alone pieces of equipment. They require a host machine to act as the prime mover and control centre for the operator. SLM typically do not manufacture prime movers. SLM implements are mounted onto FLM prime movers via the provided physical and technical interfaces. Agricultural implements are either mounted or towed.

Towed implements [tillage] have a very straight forward mechanical interface: a tow hitch. Electrical interoperability is generally supported with ISOBUS. There are some limitations on this, and proposed extensions known as [TIMS], are facing some OEM resistance.

Mounted implements [headers/fronts] have a more complicated interface with the prime mover, that include proprietary mechanical and system interfaces for secure mounting, mechanical, hydraulic, electrical and signal interfaces to the prime mover on-board systems. ISOBUS/TIMS are not used here and will not work here, due to very low latency requirements not met by the ISO standards today. Until recently, these interfaces were fairly straight forward and easy to reverse engineer. With the advent of embedded control systems, software and digital signals, reverse engineering is diminishing as an option and SLM are dependent on information, parts, and permissions from FLM to enable integrations onto their equipment.

The FLM decides to not make the required information, parts and permissions available to the SLM, then the SLM will be excluded from opportunity to exploit their innovations on equipment for sale in the market. The question of how this will happen has recently been answered as FLM have made corporate decisions NOT to extend the required information to the SLM participants, thus blocking SLM from participating in competition with the FLM offerings. This is primarily accomplished with the use of DIGITAL LOCKS AND KEYS.

The right to repair and the right to interoperate, both share some common issues. The ACCC has observed the repair aspects of the equation, and we would add to this, the interoperability variables.

Honey Bee Context

Agricultural equipment is big business where the larger OEM players are primarily located in the USA. Brands like John Deere, Case, New Holland, and Agco are joined by Claas, Versatile and others in manufacturing the motorized prime movers that all agricultural implements are mounted on or towed by, to perform work on the farm. The stated goals of these companies is to deliver on their SVA policies [shareholder value acquisition]. This is normal market economy behaviour and they are not faulted for this behaviour.

We all benefit from OEM equipment to get work done.

It's fair to say that most, if not all agricultural equipment and implement manufactures started on a farm, by farmers. Large equipment corporations have moved away from this to a greater extent, and participate in construction, mining, and forestry equipment. Their main business is engine driven machinery.

Historically, there has been a symbiotic relationship between equipment manufacturers, implement manufactures and farmers. All three parties have worked together to deliver products and solutions that facilitate the work of the whole. Repair information and parts were always readily available, and adapting implements onto equipment was straight forward work. Farmers have always innovated new farming practices and associated machinery modifications to deliver the results they wanted.

Today, we are seeing the addition of electronic technology to machinery. In some cases, this adds value for the farmer [auto steer and variable rate seeding]. In many cases, technology is added for the purposes of manufacturer benefits, at the expense of the farmer [OEM benefits, shortline and farmer pay].

For clarity, we are pro OEM equipment and open to useful technology application on the farm. The symbiotic relationship between equipment, implements and farmers is a necessity, and not optional. If anyone in this relationship becomes abusive, then we all feel the pain. Today, we are feeling the pain. ACCC is working towards a cure. Thank you.

So why is a Canadian company speaking into an Australian discussion? Due to similarities between our two nations, with respect to population size, industries, and rural extents, we often see Australian legislation and legal positions being referenced by our legislators as they investigate and modernize our laws. So, in effect, Australia leads by example in many discussions and considerations in Canada. This is not a matter of policy laundering, but rather like-minded intent. I believe this relationship is mutual and beneficial for our two nations. The variation of perspectives is valuable and healthy. We hope that our contribution here, brings value to the discussion. Honey Bee is not perfect, but we strive to address the farmer's interests. Some of what I discuss below are goals yet to be achieved, but on our radar to accomplish.

Industry competition and consumer issues

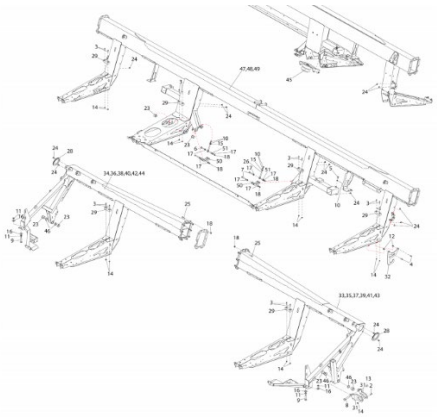
After-sales markets

The items you raise here are common in Canada too, for the same reasons. Because of digital locks and keys used by the OEM [John Deere, etc..], there are many repairs that can be performed, but not completed without a special computer based tool. These “service tools” are required to unlock a system and “authorize” it to be returned to service. Sometimes, this means a calibration must be performed. Given that some system configuration and calibrations can be made from the operator’s seat by the farmer, and others cannot, the question is why? For what purpose is this done?

Generally, I would suggest this is done to ensure the dealer technicians are in the loop on all service performed on a piece of equipment. Again, why? For answers to this, one can look to the responses given by the OEM and their dealer associations, in reaction to proposals for right to repair legislation. Typically, they will fight against right to repair and present several reasons why they oppose. Ultimately, this boils down to protecting their revenue streams, at the expense of the farmer. Another way of saying this is that OEMs are taking the farmer’s profits for themselves.

The IP, technical and safety reasons they give are usually pretty shallow and contrary to historical precedent. Farmers perform time sensitive work and are dependent on windows of opportunity to perform work. Equipment failures and shut down of any required equipment is costly, any way you factor it. As a result, any impediment to affecting repairs is unacceptable in the whole. The reality is that stuff breaks. Its unavoidable. How we CHOOSE to react to that as an industry, is what impacts the farmer for better or for worse.

Designs can be as simple as possible, with foresight towards reparability and access to common parts. Or, they can be complex, proprietary designs with single sources for repair parts. Companies and their engineering departments decide this. At Honey Bee, we have chosen design to facilitate repair for our products. It is inevitable that some parts are custom castings, extrusions, or mouldings. These parts are limited to those of either high reliably assemblies [low to no failures], or assemblies, where the desired performance outweighs the value of a common part [e.g. moulded reel fingers].



Otherwise, our products are made from steel and can be replaced with new steel parts made from plate or tubing. Additionally, we break down major assemblies [like the frame], into smaller bolt together sections to allow repair/replace of one section that may get damaged at a lower cost [e.g. outboard frame extensions].

These are just some examples of our approach, and other companies like us that focus on the farmer’s needs. All companies need to be profitable, but generally not at the expense of customer value delivered.

Logically then, all these issues would work themselves out in the wash of a free market economy and consumer choice. The problem here is, that if the dominant equipment manufactures don’t play this way, then any choice a farmer makes of brand selection will result in the same issues. Only legislation will set the rules for fair play. Which is why I choose to participate with this submission. Ownership needs to be repaired.

Agricultural machinery is expensive and purchaser rights are limited

This adds up to an unfriendly experience and diminished profitability for the farmer. Taken too far this could be catastrophic especially in times of climate change.

Purchase contracts must legally be explained and understood by a purchaser, prior to signature. However, modern equipment purchases now also include mandatory contractual agreement by the purchaser, in the form of “End User Licence Agreements” and restrictions in “Terms of Use” “contracts” that a farmer “signs” the first time they turn the key in their new combine [header] or tractor. There is no opting out.

Unfortunately, these auxiliary "contracts" lock the farmer out of the right to repair, modify, or reverse engineer for interoperability. The net result is that the farmer paid money, but does not secure all ownership rights over the useful life of the product.

This, fundamentally, is the root of all the issues this investigation will discuss. Instead of using IP law to protect their intellectual capital, they are just locking all the doors to the farmer, using what I call "private law". The opportunity for farmer innovation, and farm operational excellence, dies with this practice. Fundamentally it is anticompetitive.

Agricultural machinery is increasingly computerised and complex

Complexity is the new common denominator in modern products of all kinds. In farm equipment, the addition of complexity for the sake of technology that delivers low levels of value for the farmer, is not desirable. So why does it exist?

In the consumer electronics realm, complexity is used to deliver feature rich experiences for non-work activities. This is also now a common occurrence in our automobiles, but we can select to have it or not, as these technical options are functionally optional to the operation of the vehicle. They are optional features.

In agricultural equipment, the choices made by the designers is to make technology an integrated part of the equipment, that cannot be optioned out, or bypassed to continue work when it fails. This is unfortunate on several levels. Farm equipment is used for work, not a hobby or a casual pastime.

Ideally, non-critical functions provided by technology, should be implemented in a way that if they fail or are undesirable, they can be switched off and controlled manually. For the most part, this is not the case today. A technical failure, normally results in an equipment seizure in today's products.

Current implementations of technology in farm equipment is poor. Really poor. A 15 year old car has better systems design than current combines [headers] and tractors. This is starting to change with more automotive standards about to be released on farm equipment in the next few years. Some standards are used today, like CANbus. The way they are used is poor.

In a car, there will be at least 5 isolated bus circuits [communication paths] that are divided by function and importance. This way, a bad turn signal switch doesn't make you lose control of other key functions like steering, brakes and throttle control. In combines [headers] today, all systems are on ONE common CANbus, and that same turn signal switch failure will cause you to lose control of ALL the functions. This is an example I have seen with my own eyes.

Digging into the reason for this, I read the 5000+ page system troubleshooting manual for the combine. In it, I found the single CANbus and the over 50 controllers attached to it. The issue with a single CANbus is that a failure on it will also prevent the use of any diagnostic tools that read fault codes from the CANbus [like using the OBDII diagnostic port in your car]. The technology is less at fault, and more the design and implementation of it in a mission critical application of performing time sensitive work on the farm.

The lack of robust standards based and accessible technology on agricultural equipment is more of an issue than the complexity. When done right, complexity is managed though standardized and user available diagnostic tools. Contrary to this, the OEM position to create "walled garden" technical ecosystems on their products, leads to proprietary and locked systems with no access to the farmer. This "authorized use only" is another example of how ownership is broken. It needs to be repaired.

You have raised the issue of data interoperability and access on the farm. Don't worry, everything is good inside the garden of your choice. But you can only choose one garden… I cover this more in the last section.

Access to independent agricultural machinery repairs is limited

ACCC Key points

- *There are a number of barriers that prevent purchasers using an independent repairer to repair or service their agricultural machinery.*
- *Some manufacturer warranties restrict purchasers from engaging independent repairers during the warranty period and purchasers risk losing their warranty if they do.*
- *Most manufacturers restrict access to technical information and diagnostic software tools that are necessary to repair their machinery.*
- *Some manufacturers supply genuine parts exclusively to authorised dealers.*

Purchasers face restrictions in using independent repairers

Regarding: restricting access to diagnostic tools and information, repair information and machine parts to their authorised dealers.

This is generally true across the board on large OEM equipment. Implement manufactures systems can be generally accessed with standard CANbus tools, but probably not in an easy way. That is to say, most implement controllers are using standard J1939 CANbus protocols and ISOBUS dictionary listed commands, that someone skilled in the art, could use commercially available tools to diagnose systems. The large OEM motorized equipment tends to be more proprietary and restricted in nature, with standard protocols in use but encrypted and dependant on OEM software tools to access. These tools are "authorized dealer use only" and not available to independent repair persons. There is some indication that 2021 onwards, some form of independent tool will be available as OEMs move towards automotive AUTOSAR implementations for better standardized access to diagnostic tools [autosar.org]. Nonetheless, this may only be to their internal benefit, and it is likely that legislation mandating the availability of these tools to independent repair providers will be necessary. I would expect this to look the same as the automotive equivalent legislation. Because AUTOSAR is coming into play, making a multi-brand diagnostic tool is possible.

Some repair information is available from OEMs today, but more detailed information that dealer service departments have access to is not. Again, the automotive legislations on this make it clear that independent repair must have access to the same info and tools as the dealers. All the required information already exists, just not shared. E.g. the cost to the OEM to make this happen is low.

Retail parts sales is generally not restricted, but as an independent shop, there is no wholesale scheme in place. Everyone other than the dealer is paying full retail pricing.

Another area to consider, is that as an independent repair shop, you must have the tools and information for ALL the brands you service, not just the one brand that a dealer might represent. This is due to non-standard diagnostic tools. In automotive, one tool often works on all vehicles. This may be one price to pay for independence… until diagnostic standards are in place for cross brand consistency [like automotive].

Q: Is your warranty is voided because you installed an aftermarket part?

A: Nope.

A good explainer from: https://blog.tdotperformance.ca/guides/warranty-battles-oem-vs-aftermarket/

If you live in USA:

If a dealership tells you that your warranty is voided because you installed a performance part… the dealership is basically breaking the law. In the United States, the Magnuson-Moss Warranty Act forbids manufacturers from:

"… asking consumers to use any specific brand of article or service in order to invoke warranty coverage."

And what does the Magnuson-Moss Warranty Act mean, exactly? It means that aftermarket parts which improve your vehicle's performance do not necessarily void your warranty. Unless the dealer can prove that the aftermarket part is the direct cause of a failure. If the reason behind a failure is not clear, the dealer may charge you to run diagnostics. If the aftermarket part is still not found to be connected to the problem, the dealer is required to reimburse you that diagnostics fee. The burden of proof is on the dealership and the manufacturer. And that's something to smile about! They have to prove, not just vocalize, that the aftermarket equipment caused the need for repairs before they can deny warranty coverage.

If you live in Canada:

The Consumer Protection Acts in each province are the Canadian equivalent to the Magnuson-Moss Warranty Act. The law in Canada also states that a manufacturer cannot require a consumer to use OEM parts under the threat of voiding warranty. This practice is referred to as "tied selling" and is in direct violation of the Canadian Competition Act due to its anti-competitive nature.

I am not sure what this looks like in Australia...

Regarding: voiding a machine's warranty if the purchaser uses an independent repairer.

Warranty status after independent repair should not be impacted if correct parts are used. Correct parts does not have to mean "Genuine" parts. Parts cross reference to commodity part numbers when available, should be acceptable. The Honey Bee warranty, shown to the right, states in the limitations that we reserve the right to refuse warranty on bad repairs. We do NOT exclude any person or parts being used, only the quality of the repair. Warranty work must be claimed through a dealer [Canadian law I think], but can be performed independently. In our warranty, is a note about the operators manual. It contains basic important information on specification on service lubrications, etc. that must be followed. Simple things like the wrong grease or mixing grease will kill bearings. Evidence of this will prevent a claim, but not necessarily void our warranty. Our customers know that we are flexible on this. Some take advantage and others appreciate the focus on the customer's needs. This is probably truer for smaller implement manufacturers, than larger brands. If parts used in repair meet or exceed the original part, we generally do not have any issues honouring the warranty claim.

6.2 - Warranty

The warranty is provided as part of Honey Bee's support program for customers who operate and maintain their equipment as described in this manual.

Honey Bee Manufacturing Ltd. (Honey Bee) warrants your new Header to be free of defects in material and workmanship, under normal use and service. Obligations under this warranty shall extend for a period of 1 year (12 months) following the date of first use to the original purchaser and shall be limited to, at the option of Honey Bee, replacement or repair of any parts found, upon inspection by Honey Bee, to be defective.

Warranty Claims

The purchaser claiming under this warranty shall report a warranty claim to his Authorized Dealer. The dealer shall complete the claim, on the prescribed form online, for inspection by an authorized company representative. Warranty claims must be submitted online within 60 days of warranty expiration on the Honey Bee Manufacturing Ltd Claim Form (CFI).

Limitations of Liability

This warranty is expressly in lieu of all other warranties expressed or implied and all other obligations or liabilities on our part of any kind or character, including liabilities for alleged representations or negligence. We neither assume nor authorize any person to assume, on our behalf, any liability in connection with the subsequent sale of the Header.

This warranty shall not apply to any Header which has been altered outside the factory in a way that Honey Bee judges to affect its operation or reliability, or which has been subject to misuse, neglect, or accident.

Operator's Manual

The purchaser acknowledges having received training in the safe operation of the Header and that Honey Bee does not assume any liability resulting from the operation of the Header in any manner other than described in this manual.

Regarding: refusing to cover repairs undertaken by an independent repairer under warranty.

Same as above. If done to good effect, we are happy. If poorly done with resulting and obvious damage, we would evaluate accordingly. This is equally true for a dealer and a farmer performed repair. Our warranty is not Carte Blanc.

Regarding: some manufacturers will not reimburse warranty repairs undertaken by an independent repairer.

I am not aware of this, except in the case of repairs that MUST be "authorized" by the dealer computerized "service tool". In this case we are back on the discussion about the valid argument for allowing independent repair and availability of the necessary tools.

Diagnostic software tools, technical information, and service manuals

Availability of diagnostic software tools [with digital access keys], dealer level technical information, and service manuals will be a mandatory requirement to enable independent repair. There are a lot of farms today, that have workshops bigger than any dealer. They are often fully equipped and staffed with people who have trained on agricultural equipment repairs. They are hindered only by the lack of availability to access the dealer level tools and information. When large farm equipment fails and must be transported some distance to a dealer for repair, it would not take long to pay for dealer tools with the savings on transport alone. Down time waiting for repair is a major expense for farms. The cost of repair is often much less than the revenue lost while not working with a critical piece of equipment.

'Genuine' parts are restricted to authorised dealers

I think this issue is less about "Genuine" parts and more about no alternate parts. We need to be real about the difference between sales volumes of combines[headers] vs. automobiles. More cars are sold each day, than major equipment in a year. It is probably unrealistic to expect 10 different suppliers of a John Deere

gearbox that sells as a part 5 times a year. Modern equipment is highly integrated, which results in a lot of proprietary parts not seen on any other piece of equipment. However, this probably makes up no more than 20% of the parts on a unit and leaves about 80% of the parts requirement to either COTS [commercial off the shelf] parts or parts that can be repaired, or duplicated if desired. With the technology… even COTS parts may not work if they are electrical. This is due to the OEMs use of digital locks and keys to ensure dealer in the loop service/repair participation. Changing a light bulb on your equipment may require a dealer visit to "authorize" it on the system. This technically ensures a dealer repair revenue opportunity, as designed by the OEM.

In my opinion, this is anti-competitive behaviour, but it is unclear to me what legislation you have or need, that would address it. In this sense, "genuine" part, often means "dealer authorized part".

The most frustrating "genuine" part that farmers deal with is software. I will go out on a limb and suggest that 70% of equipment failures are related to a bad sensor or a software issue [or both]. Sensors are generally readily available and stocked on the farm [too common], but software only has one source. Either way, the dealer is the only one who can fix this. Sensors need "special" calibration and software only come from the OEM through the dealer. More on software later…

Farmers may lack recourse in the event of a problem

ACCC Key points

- *Agricultural machinery is a significant investment and a purchaser's recourse for faults is usually limited to the manufacturer warranty or paying for the repairs themselves.*
- *Manufacturer warranties provide purchasers with some protections, but these protections are limited and manufacturers have significant discretion on how to apply them.*
- *Purchasers may be unaware of their warranty's limitations.*

Purchaser engagement with warranty terms and conditions may be low

Time is money. Farmers may have to perform a non-approved repair to minimize the larger loss due to down time during key farm activities. Understood. In Canada, each province has an Agricultural Implements Act.

This summary from my province of Saskatchewan.

https://www.saskatchewan.ca/business/agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/programs-and-services/regulations-and-guidance/agricultural-implements-act

"The Agricultural Implements Act regulates the sale, lease and distribution of agricultural implements or parts in Saskatchewan. The Act works by legally requiring dealers to make available the parts and service you need for your implements.

The Act regulates:

- *minimum terms of the warranty that you should receive from your dealer when you buy or lease new equipment;*
- *sales contracts for new and used agricultural implements;*
- *leasing of an implement from a financial institution;*
- *guidelines for emergency parts and service;*
- *the means to obtain compensation for loss or damages because of unavailability of parts or non-fulfilment of warranty; and*
- *licensing of dealers and registering of distributors.*

If you fail to receive parts and service in a timely manner, you may be awarded compensation through the Act."

I am not familiar with your Australian version of this, but ours covers the time sensitive nature of farm activities and the requirement to act quickly when repair is required, in or out of warranty. Dealers can only be licenced if they can meet the terms of this Act. Dealers pay the compensation to the farmer if they fail to meet the terms of the Act. The Act needs to be modernized for current market trends and practices.

Independent repair would only supplement this and not replace the dealer obligations under the Act. In this case, the dealer/OEM would need to honour independent repairs.

Warranties are not commensurate with consumer guarantees

There are not, and they should deliver more, especially on the technical systems that OEMs tend to abandon and obsolete after about 5 years. OEMs are not held accountable today in modern legislation for planned obsolescence. The EU has recently mandated that large household appliances need to be designed for easy repair and have an expected life of at least 10-15 years. This used to be normal without laws.

Farm equipment is commonly a 6-digit capital purchase. Long service life [measured in operating hours] should be expected. 4-digit cost mobile phone purchases are driving a less disposable consumer culture, and Ag should get more life from their 6-digit cost equipment. With the low reliability of the technology on modern farm equipment, farmers are replacing their combines [headers], more often than their phones!

It's not just about the warranty, the durability and expected service life of farm equipment needs review.

Agreements between manufacturers and dealers may limit access to repairs

ACCC Key points

- *Contracts between manufacturers and dealers may limit the ability for local dealers to provide repairs.*
- *Dealership agreements may contain terms that unduly place the risks of providing repairs on local dealers.*
- *Some dealership agreements may prevent dealers competing to provide repairs to a manufacturer's machine outside a certain geographical area.*

Dealers take a lot of heat for the behaviour of the OEM. Any restrictions that a dealer imposes are generally related to the terms of the trading agreement between the OEM and the dealer. When dealers where independent and had only one or two outlets, this was more of an issue. Most OEMs now require that a dealer have a minimum of 5 outlets to be considered by a brand. This allows one dealer "brand" to generate more revenue from sales and service, due to economies of scale and shared inventory and other costs.

The larger challenge for dealers, is to secure enough technical staff to support their customer base. There is a constant shortage of dealer technicians to deliver timely service to the farms that they support as customers. This issue would be mitigated if independent repair, closer to the farmers, was facilitated.

Geographical restrictions on dealerships may limit competition for repairs

Dealer consolidation is a thing. Rural dealerships are almost gone in Canada. Independent dealers are rare today. Modern dealers locate on main logistics routes, which can be far from the farms they service. In Canada, I am not aware of geographical restrictions. In practice, many farms buy equipment from all over Canada and the USA. Like automotive, any service requirements must be met by any brand agent you choose to work with, and not just where you bought it. This is normal. Is this different in Australia?

Dealership agreements may contain unfair contract terms

Dealers have historically been free to represent the brands of their choice. Recently, this seems to be less true. Today, most dealers in Canada only represent one brand/colour and offer a very restricted off brand, short line offering. If another brand gets traded in on a new purchase, the off brand will usually be dealt out to the agent for that brand [or auctioned]. No service tools for other brands would be an issue to dealers too.

Data ownership and management may raise privacy and *competition issues*

ACCC Key points

- *Agricultural machinery is becoming increasingly complex in its use of computer systems and data.*
- *There is significant uncertainty in the market around data ownership, control and rights to data in certain circumstances.*
- *The lack of any direct right to data may create a barrier to prospective purchasers considering different brands of machinery.*

Data exploitation

There are several areas of concern on the farm regarding data. Unauthorized capture of all equipment data is common via telemetry and mandatory dealer "service tool" visits. This links back to the "terms of use" and "end user licence agreements" that farmers CANNOT op out of. What the OEM chooses to do with farm business data is out of the hands of the farmer today. Essentially the OEM is controlling the equipment after the sale.

It's amazing that we are at a place, where another company deems rights on the intimate operating data of you company. Farms are companies. Their activities are private. You can't open their mail, but you can suck all their operating data from THEIR equipment and use it or sell it onwards to the highest bidder. Just wow…

Data privacy is a hot item these days in several countries for a reason, and yet the conversation does not seem to discuss farm data. The levels of exploitation of this data, to the detriment of the commercial farmer is wide reaching. Aggregated farmer data can be sold and move commodity prices. Decisive action needs to be taken in the form of legislated privacy protection and enforcement that includes farm data.

In your key points above, you state: *"There is significant uncertainty in the market around data ownership, control and rights to data in certain circumstances."* I don't see the uncertainty here. If your activities generate data, the data is yours. How can this be construed otherwise? Legally, this relates to ownership law and the lack of clarity today in privacy legislation. To the consumer or farmer, the issue is clear. OEMs take advantage of the lack of legal clarity. And they do so for profit, at the expense of the product owner. Again, Ownership is broken and needs to be repaired.

Data tethered products

Tethering, like "tied-selling", should be considered anti-competitive behaviour. Period.

Any attempt by and OEM to lock the farmer to a specific brand does not promote interoperability or data portability. I note that you are already discussing this in Australia, and this discussion should include farm equipment. This brings us back to the discussion of "walled garden" ecosystems. When an OEM builds a physical wall around their offerings, with the use of technology, the effect is real. The illusion is that it is for the benefit of the customer.

OEMs commonly require you to buy their specific software solution to evaluate your farm data for decision making and performance measurements. Often, you must BUY your own data from them to do so! This is possible because the data is in a proprietary format that can only be used by their software tool offerings.

We see this from seed and chemical companies too. You must commit to their seed/chemical products in order to access and use the data that the farm generates during seeding and spraying.

We are starting to see some data interoperability tools become available. These are "authorized" by the OEM and limited to participating partners. Not good enough!

There are plenty of standard data formats [XML comes to mind] that are open standards for much larger data sets than are generated on the farm. It is clear that the larger OEM will not take this position in absence of enforced legislation.

Interoperability goes beyond the data.

Intentional blocking of equipment interoperability raises competition issues

The agricultural equipment ecosystem

Interoperability means that a Honey Bee harvest header can "plug-and-play" with the OEM combine. Historically this has been provided in a straight forward and obvious way, just like the way that a keyboard plugs into a computer. Today, we are starting to see encrypted digital interfaces on the OEM products that block us from connecting and operating our harvest headers on these OEM platforms.

Further, there is no technical information or parts forthcoming from the OEM to achieve the required adaptations independently of their direct involvement with Honey Bee engineering teams. The net result is "authorized use only". This is controlled by the OEM digital locks and keys that are unavailable to implement manufacturers. The vast majority of these machinery platforms are manufactured by companies in the United States and sold worldwide. For Honey Bee to continue to participate locally and globally on these platforms, we need to have the ability to connect the two and operate them in a straight forward manner.

Interoperability between different manufacturers of Ag products is key to successful innovation efforts in the Short Line industry. By nature, all Short Line products are hosted on 3rd party equipment. The mechanical and systems interfaces between the Short Line product and the host equipment is a key element of successful innovation and function. Below, we detail the main aspects that come into play in the relationship between Full Line and Short Line companies.

Full line manufacturer

Ag Full Line OEM manufactures a combine. It is sold to Farmers through a branded retail outlet, the Ag Equipment Dealer. Full Line manufacturers are the engines of industry. They are key players in all industrial sectors and provide the primary motive platforms to perform work. Their size and scope enable them to develop well integrated and functional equipment solutions that are the backbone for productivity and innovation in industry.

As capacities, functions, and reliability increase, technology is also increasing in the Full Line offerings. Advancements in technology application to heavy equipment has brought desirable advantages to industrial customers. The increased complexity of Full Line product offerings is the normal side effect of these technical advances. Technical advances provide competitive advantage that comes with the cost of development. Developers take measures to protect innovations for market opportunity to recover these costs. Historically, equipment sales have been the primary source of profit for the Full Line OEM. Increasingly, parts and the sale of farm data to 3rd parties, are adding significant revenue streams.

Full line dealer

A Farmer buys the Combine for the primary purpose of harvesting crops. A combine is primarily a "straight cut" crop harvester machine. "straight cut" implies that crop is directly cut and processed by the combine in a single effort. Otherwise, organic farms and others, still require cutting crop with a swathing machine and collecting/processing crop at a later date with a combine, after the crop has dried to the required state.

Equipment Dealers are almost always Full Line brand specific with some diversity in Short Line offerings. Dealers have a bound responsibility to provide complete and timely product support to Farmers for the equipment and other products they sell. This is not trivial and significant investment in people, parts, and tools is required to achieve this requirement. Dealer services are sold to the Farmer to recover the investment in their capacities to deliver these services. Key service responsibilities are legislated, which indirectly mandates the investment in service capabilities. Dealer market share is increasingly based on quality of service support to the Farmer. Parts and service sales is the primary source of profit for the OEM Dealer. Short Line implement sales is another [healthy margins].

Short line manufacturer

Ag Short Line OEM manufactures a combine header implement that mechanically is carried by the combine and powered by its hydraulic, mechanical and electrical supply. The Short Line header performs its specific harvest tasks in a different way that is available from the Full Line, and is dependent on interoperation with the OEM combine. The Short Line product may use the combine to perform other Ag functions, that are not available from the Full Line OEM. E.g. swathing with a combine.

A Short Line company seeks to provide solutions in the gaps of the main Full Line offerings. These gaps are related to cost, reliability, performance, weight, functions and features. For a Short Line to be relevant, the resulting products need to address specific Farmer requirements that are not currently met, in a way that is desirable. One of the main Farmers desires is that the Short Line equipment is “plug and play” with the Full Line host equipment.

Extensive modifications to the host, in order to achieve interoperability, are not desirable and compromise the Short Line offering in the market. Plug and play can be defined as the ability to mount an implement on the host machine and connect to existing interfaces for power and data with functions as expected. Any modifications to the host to achieve this are not attractive or allowed. Implement sales are the primary source of profit for the Short Line OEM.

Short line innovation under lock

In order for the Ag Short Line OEM to deliver this innovation, they are required to reverse engineer the Full Line OEM product to determine the required technical information to perform attached/interoperating hardware and embedded software innovation developments. Full Line OEM technical details for innovation on their platforms is not available from them. When asked, their policy is not to share. This is one fundamental difference between Ag and other platform products. Short Line developments on platform products are not supported by the platform Full Line OEM.

A missing element in the Full Line/Short Line equation is the availability of a Full Line equipment technical data package that provides the necessary information to facilitate integrations of Short Line product onto the Full Line host equipment. The result is that the Short Line must reverse engineer the host equipment and develop their own technical data package. This is time consuming, expensive and incomplete. Mechanical interfacing is less complicated than system interfacing. Host systems are black boxes for the most part, and difficult to decipher.

When the Full Line takes intentional actions to make reverse engineering economically unviable and, when relating to software, illegal, then the Short Line is limited in the ability to fully integrate with the host. Work around solutions are the common result. These are less desirable to the Farmer and diminish the value and opportunity of the Short Line in the market. The cost to the Short Line for reverse engineering efforts can be as high as the product development costs for the marketable result. These costs are becoming unsustainable for new products targeted for use with highly digital embedded Full Line hosts that have increasingly closed systems and undocumented interfaces.

Open interoperability

Legislation that MANDATES open interoperability is required to an open ecosystem that promotes the interests of the farmer. How this is done, and which technical standards are employed, can be developed by industry. Legislation will ensure that it is done and enforce if it is not. Without legislation, there is no enforcement. Honey Bee recently worked with the Competition Bureau of Canada [our ACCC equivalent] and got nowhere, because the legislation on any form of mandated interoperability does not yet exist. The anti-competitive behaviour had no legal context to apply. This will change and efforts are under way to update legislation to make this possible in future.

The OEM could easily provide interoperability on their products. We know this, because we have been interoperating for over 30 years at Honey Bee, without any major technical challenges. Recently, this has changed. The OEM moved to close off interoperability is being done to secure the full revenue stream for

themselves. This is happening at the expense of the short line/aftermarket industry and with the loss of productivity on the farm.

Open interoperability relates to open and/or standards based, mechanical, hydraulic, electrical, and software configurations that support innovative products, other than the host OEM, being fitted and operated on their platforms.

Concluding remarks

On the ACCC website introduction to this study, it stated:

In February 2020 the ACCC released a discussion paper which identified a number of initial concerns about issues which may be harmful to competition and to purchasers of agricultural machinery, specifically that:

- *access to independent agricultural machinery repairs is limited*
- *farmers may lack recourse in the event of a problem with their machinery*
- *agreements between manufacturers and dealers may limit access to repairs*
- *data ownership and management may raise privacy and competition concerns.*

At the time of publishing the discussion paper, the ACCC has not formed a view about the prevalence of, or harm stemming from, the issues and practices outlined. The ACCC is seeking further information and feedback from stakeholders, via a survey and submissions, to better understand the extent of the concerns identified.

I will wrap up this document with our comments in light of this opening statement.

Harm to Farmers

Farmers care most about farming. This involves several mechanically aided activities that result in the food we eat. 90% of the work on a farm is mechanical interaction with dirt. This is hard work and it needs to be performed within time and weather windows that cannot be altered. Missing these work windows, results in a loss of money and food. Farmers are not working with huge sales margins. Costs must be controlled to be viable over the life of the farm, not just the year we are in. Any factors that impact the farm operation in a negative way, can have long lasting consequences to the sustainability of a farm. Beyond the obvious performance indexes of measurement, there are less tangible and more impactful consequences that relate to farming becoming a wholly unattractive profession to next generations. When rights and freedoms to operate a farm become more and more constricting, the ability to attract continued participation may diminish. The alternative might be large commercial farm owners, that slowly diminish the number of farm owners to the point of no competition. At that point we all feel the harm.

A clear picture from Bloomberg Businessweek:

Farmers Fight John Deere Over Who Gets to Fix an $800,000 Tractor

https://www.bloomberg.com/news/features/2020-03-05/farmers-fight-john-deere-over-who-gets-to-fix-an-800-000-tractor

... “There’s also a more obvious motive for [OEM] protecting proprietary software: money. Historically, the healthy profit margins of the parts and services units have helped smooth out earnings when demand for machines is down. For Deere and its dealerships, parts and services are three to six times more profitable than sales of original equipment, according to company filings. Farmers need to keep aging equipment running; that helped increase annual parts sales by 22%, to $6.7 billion, from 2013 to 2019, while Deere’s total agricultural-equipment sales plunged 19%, to $23.7 billion. If a right-to-repair law pried open the parts and services markets to competition, Deere’s cyclical balancing act could falter. Sanchez denies the company is fighting to protect a parts-and-services monopoly. “On the repair side, I would say we’re all in,” he says. “There’s a significant number of tools that exist in the market and are available to any farmer without having to go through the dealer.”

That’s news to Jeremy Davis, owner of Firehouse Repair LLC in Palmer, one of a small number of independent equipment mechanics in central Nebraska. Before going out on his own in 2016, Davis worked for a decade at

an equipment dealership, where "you take for granted you can get any software or service manual you need," he says. "Now it's really a struggle. We can't even get basic wiring schematics for particular brands."

At least half the repairs Davis sees involve code faults triggered by emission-control systems. The faults render vehicles inoperable—a bit like a mouse incapacitating an elephant. He can replace the exhaust filters and particulate traps that throw a tractor's codes, but dealerships won't provide the software to restart it unless he or the owner hauls the machine in or pays for a mechanic to make a house call." …

Harm to innovation

Farmers could be considered the original innovators. All farm equipment companies were started by farmers. Inventing new ways to perform the work of farming has always been a part of the farm. Tinkering, designing, modifying, all towards improving the performance and reliability of farm tools. Farmers pick the "best of breed" equipment to best meet the needs of their specific crops, location, environment and desired performance. Locking farmers out of participation on agricultural equipment is a big mistake. Beyond repair, innovation should be our main driver for ensuring that farmers continue to contribute to the industry in practical ways. Food is only one of many contributions that farmers make to our nations. Farms and the farm industry are economic drivers in rural communities, globally.

There are thousands of short line manufacturers for every major OEM. They are not subsidized and would not exist if they did not have purpose. Farmers need to have a choice in the tools they use to best meet their needs. Failing to provide this will limit our ability to grow our agriculture output to feed the worlds growing population.

Harm to economy

Economies want stability but seek disruption. Standing still while other nations are moving forward is going backwards. Encouraging economic growth must encompass all willing participants. Independent repair is one of the ways that rural communities can participate in the national economy. Legislation should promote willing participants to follow their interests in creating jobs and delivering service, wherever they are located. All economies benefit from more doers and not just buyers…

Aaron Perzanowski describes it best in his discussions on the tethered economy.

The Tethered Economy a paper by Aaron K. Perzanowski

https://scholarlycommons.law.case.edu/cgi/viewcontent.cgi?article=3052&context=faculty_publications

"Abstract: Imagine a future in which every purchase decision is as complex as choosing a mobile phone. What will ongoing service cost? Is it compatible with other devices you use? Can you move data and applications across devices? Can you switch providers? These are just some of the questions one must consider when a product is "tethered" or persistently linked to the seller.

The Internet of Things, but more broadly, consumer products with embedded software, are already tethered. While tethered products bring the benefits of connection, they also carry its pathologies. As sellers blend hardware and software—as well as product and service—tethers yoke the consumer to a continuous post transaction relationship with the seller. The consequences of that dynamic will be felt both at the level of individual consumer harms and on the scale of broader, economy wide effects.

These consumer and market-level harms, while distinct, reinforce and amplify one another in troubling ways. Seller contracts have long sought to shape consumers' legal rights. But in a tethered environment, these rights may become non-existent as legal processes are replaced with automated technological enforcement. In such an environment, the consumer-seller relationship becomes extractive, more akin to consumers captive in an amusement park than to a competitive marketplace in which many sellers strive to offer the best product for the lowest price.

At the highest level, consumer protection law is concerned with promoting functioning free markets and insulating consumers from harms stemming from information asymmetries. We conclude by exploring legal options to reduce the pathologies of the tethered economy."

OEM role in solution

When any company is run on shareholder value acquisition over the interests of their customers, bad things happen. Completion in any marketplace is important. The agricultural sector is relatively small in volume when comparted to something like automotive, however the need for diversity in product and innovation could be considered higher. When products are designed to do work, they gain importance over products that are designed for convenience or fun. OEMs in key industrial sectors should be held to a higher level of accountability as a result. Ideally this in internal to the OEM, as they recognize the importance of their work and the contributions and impacts they are making. Self-regulation vs. legislation is an eternal debate that ebbs and flows with the behaviour of companies. OEMs need to review their positions on the agricultural economy and their roles in it, and determine if the course heading they have set is true to the farmers they serve.

ACCC role in solution

Like our Competition Bureau of Canada, the ACCC is charged with enforcing regulations to protect from anti-competitive behaviour in the marketplace. When legislation is found wanting, you are able to recommend directions for new or revised legislation to better serve your nation's economy. You are asking all the right questions, and I trust that you will continue to pursue the best solutions for farmers and the agricultural sector, along with the rest of the economy.

Ownership is broken and needs to be repaired.

SDS/HB

Appendix A:

The Agricultural Implements Regulations, Saskatchewan, 2019

https://publications.saskatchewan.ca/#/products/360

of particular interest regarding repair:

The Agricultural Implements Act provides the following regarding emergency repair service and parts:

Provisions respecting emergency repair service and parts
33(1) Where, within 10 years of the date of its sale as a new implement, an implement breaks down during the season of use and cannot be operated to perform, with reasonable efficiency, the intended functions set out in the contract of purchase, the dealer and the distributor shall provide to the purchaser emergency parts service for the implement.
(2) Where parts are required for emergency repairs, the purchaser shall, when ordering the parts, notify the dealer that the parts are required for emergency repairs and the dealer shall identify the order as an emergency order and indicate thereon the date and time the order was placed and provide the purchaser with a copy of the order.
(3) Where the purchaser has, under subsection (2), notified the dealer that parts are required for emergency repairs, the dealer shall notify the distributor to that effect.
(4) If a purchaser orders parts for emergency repairs, the dealer and the distributor shall ensure that those parts are available at the dealer's place of business within 72 hours from the time the order was made, not including holidays, unless delivery of the parts cannot be made within that period because of strikes or other conditions beyond the control of the dealer and the distributor.
(5) Repealed.
(6) Any extra costs in excess of the current list price charged to a purchaser for obtaining parts shall be shown separately on the invoice or bill to the purchaser and no such extra cost shall be included as part of the price of the parts.
(7) Where a dealer or distributor from whom a purchaser orders parts fails to obtain those parts within the time specified in subsection (4), the dealer and distributor are jointly and severally liable, except where delivery of the parts cannot be made because of conditions beyond the control of the dealer and the distributor, to pay to the purchaser an amount equal to one-half of the normal rental rate applicable for the implement from the date of the expiry of the time limit for delivery to the date on which those parts are made available to the purchaser at the dealer's place of business.
(8) The payment under subsection (7) shall be made only for the time during which the implement would normally have been used.
(9) In lieu of making payments as set out in subsections (7) and (8), the dealer and distributor may:
- *(a) supply the purchaser with another implement that is suitable and capable of functioning properly; and*
- *(b) if the dealer and distributor supply the purchaser with another implement pursuant to clause (a), charge the purchaser rental for that implement, to a maximum of one-half of the normal rental rate for that implement.*

(9.1) The dealer and distributor are jointly responsible for supplying the replacement equipment and are to bear equally the cost imposed on them pursuant to subsection (9) of supplying the replacement equipment.
(9.2) Replacement equipment may be supplied:
- *(a) by the dealer or distributor; or*
- *(b) if the dealer or distributor chooses not to supply the replacement equipment, by another supplier at the expense of the dealer and distributor.*

(9.3) In subsections (9.1) and (9.2), "replacement equipment" means an implement supplied pursuant to subsection (9).
(10) The normal rental rates mentioned in this section shall be those established by the board.