

Monsanto Canada Inc. and Monsanto Company (Plaintiffs)

v.

Charles Rivett (Defendant)

INDEXED AS: MONSANTO CANADA INC. v. RIVETT (F.C.)

Federal Court, Zinn J.—Toronto, January 12, 13 and 14; Ottawa, March 26, 2009.

Patents — Infringement — Accounting of profits resulting from infringement of plaintiffs' patent for glyphosate-resistant plants, sold in Canada under trademark ROUNDUP READY — Defendant infringing patent by planting ROUNDUP READY soybeans, harvesting, selling resulting crop — Differential profit approach, requiring Court compare profits made by infringer attributable to invention and profits infringer would have made had best non-infringing option been used, applied in present case — Approach requiring determining whether non-infringing alternative exists to compare profits — Conventional soybean seed used as appropriate comparator herein — Defendant entitled to deduct legitimate, proved expenses from gross revenues made from infringement — Causal connection between profits made, infringement established — Amount of profits to be disgorged \$40 137.94, defendant required to pay prejudgment interest thereon.

This was an accounting of profits resulting from the infringement of the plaintiffs' Canadian Letters Patent No. 1313830 ('830 patent). Such remedy was elected by the plaintiffs under the terms of a consent judgment in these proceedings. The defendant infringed that patent by planting ROUNDUP READY soybeans, and by harvesting and selling the resulting crop.

The '830 patent is for an invention entitled "Glyphosate-Resistant Plants" which relates to a plant gene which, when expressed in a plant cell, confers a substantial degree of glyphosate resistance upon the plant cell and plants containing such cells. As a result, such cells are resistant to herbicides such as the plaintiffs' ROUNDUP which contains glyphosate as the active ingredient. In Canada, this invention is sold under the trademark ROUNDUP READY and is widely accepted by Canadian farmers for the many benefits it confers (i.e. farmers can use glyphosate herbicide to take advantage of the glyphosate tolerance imparted by ROUNDUP READY). ROUNDUP READY is only sold pursuant to a licence that is personal to the grower. The purchased seed can only be used by the grower for planting one crop which is only to be sold for consumption. The grower is not entitled to save seed to replant a second generation crop.

The defendant, a farmer, grows, harvests and sells soybeans, corn and wheat. In 2004, without permission or a licence, he planted, cultivated and harvested 947 acres of ROUNDUP READY soybeans and sold all the yield therefrom, generating a gross revenue of \$233 311.73.

At issue was: the proper method to be used in conducting an accounting of profits; the proven expenses incurred by the defendant that could be deducted from the gross revenue made by selling the infringing ROUNDUP READY soybean crop in 2004; the profits made from the infringement that were to be disgorged; the defendant's liability to pay pre-judgment and postjudgment interest.

Held, the total amount of profits to be disgorged by the defendant and paid to the plaintiffs is \$40 137.94.

Under paragraph 57(1)(b) of the *Patent Act*, the Court may require the infringer to render an account of the profits made because of the infringement and to disgorge those profits by paying them to the patent holder. This is the equitable remedy of an accounting of profits. As was stated by the Supreme Court of Canada in *Stronach v. 3464920 Canada Inc.*, an order requiring that the profits made as a consequence of the actions of the wrongdoer are to be disgorged may serve one or both of two equitable purposes. The prophylactic purpose, the first purpose, is to deter the wrongdoer and others who might emulate his actions. The restitutionary purpose, the second purpose, is to restore to the wronged party profit which properly belongs to him but which has been wrongly appropriated by the wrongdoer. Unlike a compensatory award, a restitutionary award is not focused on restoring the wronged party to the position he would have been in but for the breach but rather on putting the wrongdoer in the position he would otherwise have been had he not committed the wrong. As well, while deterrence is rightly one aspect of the remedy, it is not intended to be punitive.

Requiring the party at fault to disgorge the profits made from the infringement while ensuring that he is not being required to hand over more requires focusing on the causal connection between the act that infringes the invention and the profit, between the wrong and the remedy. Where there is no causal connection, there is no profit for which the infringer is required to account.

There are three possible approaches to determining the profits of the infringer that are to be paid over to the patentee. The first is the differential profit approach which requires that the court compare the profits made by the infringer that are attributable to the invention and the profits that the infringer would have made had he used the best non-infringing option. The differential cost approach requires that the Court deduct from the gross revenue received by the infringer the variable or current expenses directly attributable to the infringement and any increased, fixed or capital expenses that are directly attributable to the infringement. The full cost approach increases the deductible expenses in the differential cost approach by also deducting from the revenue earned the relevant portion of the common costs incurred by the infringer.

The appropriate approach to be applied in this case was the differential profit approach. When performing an accounting of profits, the causal link must be between the profits made and the invention that is protected. This approach is preferred since it isolates and identifies the profit that was generated because of the patented invention. It looks to those profits that result from the invention that is protected and eliminates those profits that may be earned but that have no causal link to the invention. When applying the differential profit approach, it must be determined whether there is a non-infringing alternative that can be used as a comparator of profits that would have been generated therewith. The next best non-infringing alternative that is to be considered when using the differential approach cannot be what one would have done had one complied with the law. The comparison is to the profit that would have been earned from using the next best product that is not the patented product itself, with the latter acting as a baseline from which to calculate added value. As such, in this case, the comparison was not to the profits that the defendant would have generated had he legally bought the ROUNDUP READY soybean seed and purchased the licence, but to soybean seed that had none of the plaintiffs' invention. Whether the comparator non-infringing product was actually available for use or sale was not determinative. Therefore, conventional soybean was the appropriate comparator.

The defendant was properly entitled to deduct from the gross revenue received from the sale of the crop his legitimate and proved expenses. He had the burden to prove the costs that were to be deducted. The expenses apportioned had to be directly related to the ROUNDUP READY soybean crop. Some of the expenses accepted were fertilizer, land rent, fuel costs and herbicide.

As to the profits to be disgorged, applying the differential profit approach, there was a causal connection between the profits made and the infringement. The gross profits of infringement were thus calculated. As there was a non-infringing option, conventional soybeans, the profits using this option were also calculated. The difference between the two profits, \$40 137.94, was the profit directly attributable to and resulting from the

infringement of the patent.

As to pre- and postjudgment interest, the general rule in an accounting of profits is that there is an award of compound prejudgment interest. There were no factors mitigating such an award herein. Since the defendant knew that the seed he was planting was patented and knew that he needed a licence to grow it, he was required to pay prejudgment interest on the profits to be disgorged.

STATUTES AND REGULATIONS CITED

Canada Evidence Act, R.S.C., 1985, c. C-5.
Federal Courts Act, R.S.C., 1985, c. F-7, ss. 1 (as am. by S.C. 2002, c. 8, s. 14), 36 (as am. by S.C. 1990, c. 8, s. 9; 2002, c. 8, s. 36), 37 (as am. *idem*, s. 37).
Federal Courts Rules, SOR/98-106, rr. 1 (as am. by SOR/2004-283, s. 2), 258(5) (as am. by SOR/2006-219, s. 2), 279 (as am. *idem*, s. 6), 394.
Patent Act, R.C.S., 1985, c. P-4, ss. 42 (as am. by R.S.C., 1985 (3rd Supp.), c. 33, s. 16), 57(1)(b).

CASES CITED

APPLIED:

Strother v. 3464920 Canada Inc., 2007 SCC 24, [2007] 2 S.C.R. 177, 281 D.L.R. (4th) 640, [2007] 7 W.W.R. 381; *Monsanto Canada Inc. v. Schmeiser*, 2004 SCC 54, [2004] 1 S.C.R. 902, 239 D.L.R. (4th) 271, 31 C.P.R. (4th) 161, revg 2002 FCA 309, [2003] 2 F.C. 165, 218 D.L.R. (4th) 31, 21 C.P.R. (4th) 1, affg 2001 FCT 256, 12 C.P.R. (4th) 204, 202 F.T.R. 78; *Wellcome Foundation Ltd. v. Apotex Inc.* (1998), 82 C.P.R. (3d) 466, 151 F.T.R. 250 (F.C.T.D.); *Bristol-Myers Squibb Co. v. Canada (Attorney General)*, 2005 SCC 26, [2005] 1 S.C.R. 533, 253 D.L.R. (4th) 1, 39 C.P.R. (4th) 449.

DISTINGUISHED:

Teledyne Industries, Inc. v. Lido Industrial Products Ltd. (1982), 68 C.P.R. (2d) 204 (F.C.T.D.).

CONSIDERED:

Beloit Canada Ltd. v. Valmet Oy (1994), 55 C.P.R. (3d) 433, 78 F.T.R. 86 (F.C.T.D.), affd in part (1995), 61 C.P.R. (3d) 271, 184 N.R. 139 (F.C.A.); *Manufacturing Company v. Cowing*, 105 U.S. 253 (1881); *Reading & Bates Construction Co. v. Baker Energy Resources Corp.*, [1995] 1 F.C. 483, (1994), 58 C.P.R. (3d) 359, 175 N.R. 225 (C.A.); *Lubrizol Corp. v. Imperial Oil Ltd.*, [1997] 2 F.C. 3, (1996), 71 C.P.R. (3d) 26, 206 N.R. 136 (C.A.); *Reading & Bates Construction Co. v. Baker Energy Resources Corp.* (1992), 44 C.P.R. (3d) 93, 56 F.T.R. 22 (F.C.T.D.); *Diversified Products Corp. v. Tye-Sil Corp.* (1990), 30 C.P.R. (3d) 324, affd 32 C.P.R. (3d) 385, 38 F.T.R. 251 (F.C.T.D.).

REFERRED TO:

Bayer Aktiengesellschaft v. Apotex Inc. (2001), 10 C.P.R. (4th) 151 (Ont. S.C.J.), affd (2002), 16 C.P.R. (4th) 417 (Ont. C.A.); *Hancor Inc. v. Systèmes de drainage modernes Inc.* (1991), 38 C.P.R. (3d) 62, 45 F.T.R. 266 (F.C.T.D.).

AUTHORS CITED

Amel, David A. and Matthew J. Graff, "The 'Differential Profit' Approach in *Monsanto*" in *The Return of the Six-Minute Intellectual Property Law Lawyer*, November 10, 2004. Toronto: Law Society of Upper

Canada, Continuing Legal Education, 2004.
Siebrasse, Norman. "A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms" (2004), 20 *C.I.P.R.* 79.

ACCOUNTING OF PROFITS resulting from the infringement of the plaintiffs' Canadian Letters Patent No. 1313830 by the defendant who planted ROUNDUP READY soybeans, harvested them and sold the resulting crop.

APPEARANCES

Arthur B. Renaud and L. E. Trent Horne for plaintiffs.
Donald R. Good for defendant

SOLICITORS OF RECORD

Bennett Jones LLP, Toronto, for plaintiffs.
Donald R. Good & Associates, Ottawa, for defendant.

The following are the reasons for judgment rendered in English by

[1] ZINN J.: Mr. Rivett is a farmer. In 2004 he infringed Canadian Letters Patent No. 1313830 (the '830 patent) by planting ROUNDUP READY soybeans, and by har-vesting and selling the resulting crop. These reasons for judgment address the remedy selected by the plaintiffs for the defendant's breach—an accounting of profits.

Background

[2] Most of the relevant underlying facts are agreed upon by the parties and the following is largely reproduced from admitted allegations in the statement of claim and from an agreed statement of facts filed at the commencement of trial.

[3] Monsanto Company is the owner of the '830 patent issued February 23, 1993, for an invention entitled "Glyphosate-Resistant Plants". Pursuant to the provisions of the *Patent Act*, R.S.C., 1985, c. P-4, and by virtue of its patent, Monsanto Company is granted the exclusive right, privilege and liberty of making, constructing, using and selling to others to be used the invention described and claimed in the '830 patent. Monsanto Canada Inc. is related to Monsanto Company, and is a licensee under the '830 patent. It sells Monsanto Company products in Canada. In these reasons reference to both plaintiffs is made by the terms "Monsanto" or "the plaintiffs".

[4] The invention described and claimed in the '830 patent relates to a plant gene which, when expressed in a plant cell, confers a substantial degree of glyphosate resistance upon the plant cell and plants containing such cells. As a result, such cells are resistant to herbicides such as Monsanto's ROUNDUP which contains glyphosate as the active ingredient. The invention further relates to a method for producing dicotyledonous plants that are resistant to glyphosate-containing herbicides. In Canada, glyphosate-resistant seeds and plants containing genes or cells in accordance with the claims of the '830 patent are sold under the trade-mark ROUNDUP READY.

[5] Among the benefits of ROUNDUP READY seed is that a farmer can use glyphosate herbicide on the plants once they have sprouted; this kills the weeds but not the crop. This results in a saving in herbicide use, frequency of application and an increased crop yield. As a consequence, ROUNDUP READY seed has been widely accepted by farmers in Canada.

[6] ROUNDUP READY seed is only sold pursuant to a licence that is personal to the grower. The purchased seed can only be used by the grower for planting one crop which is only to be sold for consumption; the grower is not entitled to save seed for the purpose of replanting a second generation crop. These conditions are imposed as every cell of each plant produced from ROUNDUP READY seed, as well as each resulting kernel or bean, contains the gene described in the '830 patent.

[7] Mr. Rivett is a farmer in Beeton, Ontario. He grows, harvests and sells soybeans, corn and wheat. In 2004, without permission or a licence, he planted ROUNDUP READY soybeans and harvested the resulting crop. Mr. Rivett admits that in so doing he used, reproduced and created genes, cells and soybean seeds and plants containing genes and glyphosate-resistant cells as claimed in each of claims 1, 2, 5, 6, 7, 22, 23, 26, 27, 28 and 47 of the '830 patent.

[8] Mr. Rivett admits that he sprayed the ROUNDUP READY soybean sprouts with a glyphosate herbicide to take advantage of the glyphosate tolerance imparted by ROUNDUP READY soybeans. He sold all of the yield from the crop of infringing ROUNDUP READY soybeans.

[9] Justice Simon Noël issued a consent judgment on January 11, 2007, which granted certain declaratory relief, permanently enjoined the defendant from further infringing activities and required the defendant to deliver up any infringing seed and plants in his possession to Monsanto Canada Inc.

[10] That judgment left a number of issues to be determined at the trial of this action. Some of those outstanding issues were dropped or not pursued. The plaintiffs were required under the terms of the judgment to elect as between damages and an accounting of profits. The plaintiffs elected an accounting of profits. The only issues remaining to be determined by the Court, pursuant to the consent judgment and the parties' subsequent agreements, are the following:

- a. An accounting of the defendant's profits derived from the infringement;
- b. Prejudgment and postjudgment interest; and
- c. The costs of the proceedings.

[11] The following facts relevant to the accounting of profits were admitted by Mr. Rivett:

- a. In 2004 he planted, cultivated and harvested 947 acres of ROUNDUP READY soybeans.
- b. The gross revenue he received for the sale of the yield from the 947 acres of ROUNDUP READY soybeans was \$233 311.73.

- c. He did not pay another person to clean ROUNDUP READY soybean seed.
- d. He did not hire employees for the sole purpose of cultivating ROUNDUP READY soybeans.
- e. He did not pay a third party to plant ROUNDUP READY soybeans.
- f. He did not pay a third party to apply fertilizers or herbicides to his ROUNDUP READY soybeans.
- g. He did not pay a third party to harvest the ROUNDUP READY soybeans.
- h. He did not purchase equipment for the sole purpose of cultivating the ROUNDUP READY soybeans.
- i. Apart from the 947 acres of ROUNDUP READY soybeans he planted, cultivated and harvested in 2004, he also planted, cultivated and harvested 811 acres of conventional soybeans, 1408 acres of corn, and 350 acres of winter wheat.

[12] In addition to these agreed facts, Michael McGuire, a vice-president of Monsanto Canada Inc. and the director of its eastern Canadian seed and trade business, gave evidence for the plaintiffs. Mr. McGuire testified as to the benefits of ROUNDUP READY seed and the additional profit that a farmer using this Monsanto product should expect to obtain. He also spoke to the enforcement mechanisms that have been put in place to track and deal with infringers of the '830 patent. Mr. Rivett testified on his own behalf. Mr. Rivett did not dispute any of the evidence offered by Mr. McGuire. His testimony was directed to his farming operation, the reasons behind the infringement in 2004 and the costs of his farming operation. While he was vigorously cross-examined by counsel for the plaintiffs, the plaintiffs led no evidence to contradict his evidence other than, perhaps, evidence Mr. Rivett himself had given during his examination for discovery.

[13] After Mr. Rivett had given his evidence, the defendant proposed to call Gary Fisher as an expert witness. Mr. Fisher was described by the defendant's counsel as an agrologist with training in economics. It was proposed that he speak to a document he had prepared relating to the defendant's farming operation entitled "Soybean Cost Estimation". It purported to be "an independent estimation of the costs and returns of the production of roundup ready soybeans produced on the Charles Rivett's farm in 2004" (*sic*). Attached to the report was an unaudited income statement for the defendant comparing revenue and expenses for the years ended December 31, 2004 and December 31, 2005. The plaintiffs objected to the admission into evidence of the report and also objected to the evidence of Mr. Fisher relating to the content of the report. The Court upheld that objection; these are the reasons for that ruling.

[14] The defendant had not complied with subsection 258(5) [as am. by SOR/2006-219, s. 2] of the *Federal Courts Rules* [SOR/98-106, r. 1 (as am. by SOR/2004-283, s. 2)] regarding Mr. Fisher's evidence as an expert and, pursuant to rule 279 [as am. by SOR/2006-219, s. 6], the evidence was not admissible unless the Court ordered otherwise. The Court was not prepared to exercise its discretion to admit the evidence of Mr. Fisher for the following reasons. Mr. Fisher's testimony was to be based on an income statement that had not previously been produced to the plaintiffs and thus there had been no opportunity for the plaintiffs to challenge its accuracy. The author of the income

statement was not being called as a witness and, if the document was a business record, the provisions of the *Canada Evidence Act* [R.S.C., 1985, c. C-5] had not been complied with. The income statement attached to the purported expert report was incomplete—it consisted of a single page from what appeared to be unaudited financial statements of the defendant. Further, the page directed the reader to “See Notice to Reader”, which notice was not included and which may have been critically relevant. Accordingly, even if Mr. Fisher was qualified as an expert, his opinion evidence would be based on hearsay evidence that, in some respects, appeared to be contrary to the direct evidence that had previously been given by the defendant when he was on the stand. Given these circumstances, permitting the defendant to file the report as an exhibit or call Mr. Fisher as a witness would be unfair to the plaintiffs who had not had and would not have an opportunity to test the underlying data. The evidence offered, being based on hearsay evidence, would be given very little, if any, weight and thus it would not assist the Court in reaching the decisions required in this action.

[15] It is relevant to mention one other ruling that was made in the course of trial. The defendant produced a document at his examination for discovery that he had prepared and that purported to reflect the expenses he incurred to grow soybeans. He gave evidence at trial with respect to this document (Exhibit D-12). He indicated that in some instances, the figures he had put down reflected the average costs he incurred for that item. As an example, the document reflected an average cost of the land he leased. Other figures in the document reflected information obtained from the Ontario Federation of Agriculture that reflected the results of its research into various farming costs, for example, the average cost to operate particular pieces of farm equipment. The plaintiffs objected to this evidence.

[16] The Court ruled that the defendant could speak to information contained in the document he had prepared but that any information contrary to direct evidence before the Court of actual expenses incurred, or contrary to any of the agreed facts, would be given no weight. Further, it was indicated that little weight was likely to be given the evidence in so far as it relied on information obtained from third-party sources. However, as some of the information appeared to relate to the value of a farmer’s labour and given the submission of the defendant that he ought to be given some credit for his own labour, the evidence was accepted, subject to weight, for that limited purpose. In light of my decision herein on that issue, the defendant’s testimony regarding this document and Exhibit D-12, ultimately were not considered.

Issues

[17] The following are the issues requiring the Court’s determination:

- a. What is the proper method to be employed by this Court in conducting an accounting of profits?
- b. What expenses were proved by Mr. Rivett to have been incurred or were otherwise properly deductible from the gross revenue he obtained from the sale of the infringing ROUNDUP READY soybean crop in 2004?
- c. Applying that proper method of accounting of profits, what were the profits made by Mr. Rivett from the infringement that are to be disgorged?

d. Is the defendant liable to pay prejudgment and postjudgment interest and if so, in what amounts?
and

e. Is the defendant liable to pay costs and if so, what is the quantum?

Analysis

a. What is the proper approach in this case to an accounting of profits?

[18] Paragraph 57(1)(b) of the *Patent Act*, R.S.C., 1985, c. P-4, permits the Court when there has been an infringement of a patent, to “make such order as the court or judge sees fit . . . for and respecting inspection or account.” It is under this provision that this Court may require the infringer to render an account of the profits made because of the infringement and to disgorge those profits by paying them over to the patent holder. This is the equitable remedy of an accounting of profits.

[19] The Supreme Court in *Strother v. 3464920 Canada Inc.*, 2007 S.C.C. 24, [2007] 2 S.C.R. 177, observed that an order requiring that the profits made as a consequence of the actions of the wrongdoer are to be disgorged may serve one or both of two equitable purposes. The first is described by the Court as a prophylactic purpose. Its focus is to deter the wrongdoer and others who might emulate his actions. The second is described by the Court as a restitutionary purpose. Its focus is to restore to the wronged party profit which properly belongs to him, but which has been wrongly appropriated by the wrongdoer.

[20] It is not necessary that both purposes be served in every case. If one assumes that the motive for the infringement is profit, then ordering a wrongdoer to hand over those profits to the person who has been wronged will generally serve to deter that wrongdoer and others who might be like-minded.

[21] Unlike a compensatory award, a restitutionary award is not focused on restoring the wronged party to the position he would have been in but for the breach. The measure of restitution is the defendant’s gain rather than the plaintiff’s loss. As the Supreme Court noted in *Strother*, there are situations where, although the wrongdoer has profited, the wronged party has not suffered a corresponding loss. In those instances, one might be tempted to claim that the wronged party is unjustly enriched if he is awarded a sum in excess of his actual loss. That position was unsuccessfully argued by the defendant in *Bayer Aktiengesellschaft v. Apotex Inc.* (2001), 10 C.P.R. (4th) 151 (Ont. S.C.J.), *aff’d* (2002), 16 C.P.R. (4th) 417 (Ont. C.A.) and was suggested by the defendant in this case. A trade news report was submitted in evidence in which it was asserted on behalf of the defendant that when caught by the plaintiffs he should only be required to compensate Monsanto for the sum he would otherwise have paid for the ROUNDUP READY seed which includes the licensing fee. If that were the proper measure of the award, then it would be compensatory in that Monsanto would be placed in the position it would have been in had the infringement not occurred. However, it could also leave some of the profits in the hands of the wrongdoer, which is precisely the inequity—the unjust enrichment—the restitutionary remedy seeks to address.

[22] While there will be instances where the effect of the disgorgement order is to put the wronged party back into the same position he would have been in but for the wrong, that is the exceptional

situation. Frequently, such as in *Strother*, the wronged party will receive more than his loss. The other side of the coin is that in some instances, the wronged party will recover less than his actual loss if this remedy is elected. The proper description of this second purpose, in my view, is not to restore the wronged party to the position in which he would have otherwise been; rather, it is to put the wrongdoer in the position he would otherwise have been if he had not committed the wrong. In this sense, it is the wrongdoer who is being restored, through a disgorgement of profits, to the position that he would have been in had he not done the illegal act.

[23] Simply putting these plaintiffs back to the position they would have been but for the infringement is not appropriate in light of the remedy the plaintiffs have elected. If it were, then arguably neither equitable purpose would be achieved. At the level of principle, there is no deterrent from infringing the patent if what the infringer is required to hand over is the sum he would otherwise have paid to Monsanto to buy the seed and the licence. In fact, this would almost be counter to the purpose of deterrence. It is much like saying, as the plaintiffs put it in their oral submission, "Catch me if you can". If caught, the defendant would be required to pay the sum he would have paid to use the patent in any event. When not caught, he is left with a windfall. The accounting remedy would lack any deterrent effect if defendants could use patented technology and retain the profits from such use subject only to paying a license fee as compensation if and when they are caught.

[24] It also fails to serve the second purpose of a disgorgement, namely returning the wrongdoer to the place he would have been but for wrongfully appropriating the property of the other. If the disgorgement of profits creates an alleged "windfall" to the patentee, the cause of that result is the illegal act of the infringer and it does not lie in his mouth to argue that it is he and not the patent holder who should retain any excess profits.

[25] Some time has been devoted to describing the purposes of this remedy as the plaintiffs made a number of submissions urging that the order of this Court must be a real deterrent to the defendant and others who may consider infringing the plaintiffs' patent. This, it was argued, requires a consideration of the consequences of the actions from the perspective of a cost-benefit analysis. While deterrence is rightly one aspect of the remedy, one must not lose sight of the fact that the remedy is not intended to be punitive.

[26] The non-punitive nature of the accounting remedy was noted by Justice Rouleau in *Beloit Canada Ltd. v. Valmet Oy* (1994), 55 C.P.R. (3d) 433, at page 455 (F.C.T.D.), varied on other grounds (1995), 61 C.P.R. (3d) 271 (F.C.A.). He summarized the law in this regard and distinguished an accounting of profits from an award of damages as follows:

... damages may be compensatory or punitive according to whether they are awarded as a measure of the actual loss suffered by the plaintiff or as punishment for outrageous conduct and to deter future transgressions by the defendant. While an accounting of profits might serve to dissuade a defendant from pursuing its improper course of conduct, punishment does not play a role in its award. As an equitable remedy, its entire rationale is to redress wrongs, not to administer punishment. In *Ruff v. Swan* (1921), 20 O.W.N. 158 at p. 160, the Court noted "the object of the inquiry was to compensate the plaintiff, and not to punish the defendants".

[27] Requiring the party at fault to disgorge the profits made from the infringement while ensuring that he is not being required to hand over more, requires that one focus on the causal connection

between the act that infringes the invention and the profit, between the wrong and the remedy. Where there is no causal connection, there is no profit for which the infringer is required to account. An example of this situation is found in *Monsanto Canada Inc. v. Schmeiser*, 2001 FCT 256-12 C.P.R. (4th) 204, aff'd 2002 FCA 309, [2003] 2 F.C. 165, rev'd 2004 SCC 34, [2004] 1 S.C.R. 907, about which much more will be said later in these reasons.

[28] It was submitted by the plaintiffs that there are three possible approaches to determining the profits of the infringer that are to be paid over to the patentee:

- a. The value based or differential profit approach;
- b. The variable cost or incremental cost or differential cost approach; and
- c. The full absorption or full cost approach.

Differential profit approach

[29] The differential profit approach requires that the Court compare the profits made by the infringer that are attributable to the invention and the profits that the infringer would have made if he had used the best non-infringing option. Using this approach, the analysis required is as follows:

- a. Is there a causal connection between the profits made and the infringement? If there is none, then there are no profits that require an accounting.
- b. If there is a causal connection, then what were the profits made by the infringer as a result of the infringement? This amount I shall describe as the gross profits of infringement.
- c. Is there a non-infringing option that the infringer could have used?
- d. If there is no non-infringing option, then the gross profits of infringement are to be paid over to the patentee.
- e. If there is a non-infringing option, then what profit would the infringer have made, had he used that option? This amount I shall describe as the gross profits of non-infringement.
- f. Where there was a non-infringing option available, the amount to be paid over to the patentee is the difference between the gross profits of infringement and the gross profits of non-infringement. This sum is the profit that is directly attributable to and that results from the infringement of the invention.

Differential cost approach

[30] The differential cost approach involves no comparison or consideration of what might have been. The differential cost approach requires that the Court deduct from the gross revenue received by the infringer the variable or current expenses directly attributable to the infringement and any increased, fixed or capital expenses that are directly attributable to the infringement. Using this

approach, the analysis required is as follows:

- a. What is the gross revenue the infringer received as a result of the infringement (the gross revenue)?
- b. Did the infringer incur any current expenses in infringing the patent; if so what is the total of those expenses (the current expenses)?
- c. Did the infringer incur any capital expenses directly related to infringing the patent; if so what is the total of those expenses (the capital expenses)?
- d. The amount to be paid over to the patentee is the gross revenue less the sum of the current expenses and the capital expenses.

[31] A current expense is one that usually reoccurs after a short period. In the context of this action, current expenses incurred in growing, harvesting, and selling a farm crop could include the expenses incurred in leasing land, hiring contractors to plant, cultivate and harvest the crop, costs incurred in purchasing fertilizers and herbicides, and the costs incurred in purchasing crop insurance. A capital expense generally gives a lasting benefit or advantage. In the context of this action, capital expenses incurred in growing, harvesting, and selling a farm crop could include the expense of any machinery that was purchased specifically and only in order to plant, cultivate or harvest the crop. Where that capital expense has uses other than those directed to the patented invention, then it may be appropriate to deduct only a portion of the expense.

Full cost approach

[32] The full cost approach increases the deductible expenses in the differential cost approach by also deducting from the revenue earned the relevant portion of the common costs incurred by the infringer. In the context of this action, where the infringer is using a patented seed but is also growing, harvesting and sell-ing other crops from conventional seed, he will have costs that are incurred as a consequence of his farming operations, such as general insurance on his buildings and equipment, capital depreciation of equipment, and expenses for water and electricity. Using the full costs approach, a portion of these common costs would be deducted from the revenue earned by the infringer.

[33] If the full cost approach has ever been endorsed by this Court, it has not been of late. It has been rejected in *Teledyne Industries, Inc. v. Lido Industrial Products Ltd.* (1982), 68 C.P.R. (2d) 204 (F.C.T.D.); *Diversified Products Corp. v. Tye-Sil Corp.* (1990), 30 C.P.R. (3d) 324 (F.C.T.D.), aff'd on this point (1990), 32 C.P.R. (3d) 385 (F.C.T.D.); *Hancor Inc. v. Systèmes de drainage modernes Inc.* (1991), 38 C.P.R. (3d) 62 (F.C.T.D.); and *Wellcome Foundation Ltd. v. Apotex Inc.* (1998), 82 C.P.R. (3d) 466 (F.C.T.D.). Neither party advocated using the full cost approach in this case.

The appropriate approach in this case

[34] The plaintiffs submit that the appropriate approach to apply in this case is the differential cost approach. It is submitted that this approach has been followed in this Court and others for nearly 30

years since the decision in *Teledyne*. They acknowledge that the majority of the Supreme Court in *Schmeiser* stated [at paragraph 102] that “the preferred means of calculating an accounting of profits . . . is the . . . ‘differential profit’ approach” but submit that this statement must be limited to the particular facts of *Schmeiser* and could not have been intended by the Court to be an exposition of the whole of the law. In any event, the plaintiffs further submit that the statement must be seen in light of the fact that the Supreme Court ultimately did not apply the differential profit approach. The plaintiffs submit that applying the differential cost approach, the defendant must disgorge profit made in the amount of \$159 569.50.

[35] The defendant submits that this Court ought to use an approach similar to that used by Justice MacKay in his judgment at trial in *Schmeiser*. The plaintiffs submit that this is akin to the full cost approach discussed above. I do not think that is an accurate characterization of the approach urged on the Court by the defendant. The defendant has not submitted that all of the costs of his farming operation ought to be deducted from the gross revenue received from the sale of soybeans. Rather, the defendant urges the Court to credit him for some costs that were not directly incurred and paid, such as his own labour and expertise. The defendant described this as applying *Teledyne* in the manner Mr. Justice MacKay did at trial in *Schmeiser*. Mr. Schmeiser was not paid a salary for his work in farming but Mr. Justice MacKay held [at paragraph 154] that “his labour should be recognized in accounting of profits.” Applying its approach, the defendant submits that he has no profits to disgorge as he incurred a loss in his farming operations relating to the infringing crop.

[36] In my view, the decision of the Supreme Court in *Schmeiser* does not have the restricted application urged upon the Court by Monsanto.

[37] *Schmeiser* involved the same patent infringed by Mr. Rivett in this case. Mr. Schmeiser was a farmer in Saskatchewan. In 1998 he planted ROUNDUP READY canola but did not purchase the seed from Monsanto nor did he execute the Monsanto technology use agreement. He claimed that his crop had been contaminated from neighbouring crops of ROUNDUP READY canola and that he had not deliberately planted any seed containing the patented gene. However, the trial Judge found that Mr. Schmeiser knew or ought to have known in 1998 when he planted the crop that the canola seed he planted was ROUNDUP READY seed. In 1997, Mr. Schmeiser had saved seed from a road allowance adjacent to his fields which had survived herbicide spray and planted that seed and seed from his previous crop in 1998. He knew what he was planting and he knew that Monsanto had a patent on it. Accordingly, he was not an innocent infringer.

[38] The Supreme Court found that Mr. Schmeiser, in planting and cultivating the seed, had “used” the patented cell and gene technology contrary to section 42 [as am. by R.S.C., 1985 (3rd Supp.), c. 33, s. 16] of the *Patent Act*. The Court was not inclined to the view that he was “making” or “constructing” anything in breach of the patent within the meaning of section 42, but withheld a decided opinion on those questions.

[39] As noted, the benefit of ROUNDUP READY seed is that the farmer can spray his field with glyphosate herbicide after the seed has sprouted and only the weeds will be affected. The plant growing from the ROUNDUP READY seed, unlike the plant growing from a conventional seed, will not be affected. The evidence at trial was that although Mr. Schmeiser had planted ROUNDUP READY canola seed he did not spray that crop with glyphosate herbicide after the seed sprouted.

Therefore, in all respects he farmed the crop exactly as he would have if it had been grown from conventional canola seed.

[40] At trial the defendant argued that he had made no profit from the sale of the canola crop that was grown from the ROUNDUP READY canola because he earned the same from the sale of the crop as he would have had he planted conventional canola. The trial Judge rejected that submission holding that Monsanto was entitled to recover the profit from the sale of the crop, not any increase in profit that might have resulted from the ROUNDUP READY canola crop over a conventional seed crop [at paragraph 135]:

For the defendants it is urged there were no measurable profits earned from sale of the 1998 crop even if it did include the plaintiffs' patented gene. The argument is based on the assumption that the defendants would have earned the same profits on sale of a canola crop that did not contain the gene. That is no answer to the issue of profits from sale of the crop which I have found contained the plaintiffs' patented gene and cells. It is the profit from sale of that crop that plaintiffs may claim, not the difference between sale of that crop and sale of an alternative crop that was not grown.

The Federal Court of Appeal endorsed this view at paragraph 79 of its reasons for judgment in *Schmeiser*.

[41] In allowing the appeal by Mr. Schmeiser, the Supreme Court rejected that approach and endorsed the differential profit approach to an accounting of profits in five short paragraphs that are worth reproducing in their entirety (at paragraphs 101-105):

It is settled law that the inventor is only entitled to that portion of the infringer's profit which is causally attributable to the invention: *Lubrizol Corp. v. Imperia Oil Ltd.*, [1997] 2 F.C. 3 (C.A.); *Celanese International Corp. v. BP Chemicals Ltd.*, [1999] R.P.C. 203 (Pat. Ct.), at para. 37. This is consistent with the general law on awarding non-punitive remedies:

"[I]t is essential that the losses made good are only those which, on a common sense view of causation, were caused by the breach" (*Canson Enterprises Ltd. v. Boughton & Co.*, [1991] 3 S.C.R. 534, at p. 556, per McLachlin J. (as she then was), quoted with approval by Binnie J. for the Court in *Cadbury Schweppes Inc. v. FBI Foods Ltd.*, [1999] 1 S.C.R. 142, at para. 93).

The preferred means of calculating an accounting of profits is what has been termed the value-based or "differential profit" approach, where profits are allocated according to the value contributed to the defendant's wares by the patent: N. Siebrasse, "A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms" (2004), 20 *C.I.P.R.* 79. A comparison is to be made between the defendant's profit attributable to the invention and his profit had he used the best non-infringing option: *Collette v. Lasnier* (1886), 13 S.C.R. 563, at p. 576, also referred to with approval in *Colonial Fastener Co. v. Lightning Fastener Co.*, [1937] S.C.R. 36. [Emphasis added.]

The difficulty with the trial judge's award is that it does not identify any causal connection between the profits the appellants were found to have earned through growing Roundup Ready Canola and the invention. On the facts found, the appellants made no profits as a result of the invention.

Their profits were precisely what they would have been had they planted and harvested ordinary canola. They sold the Roundup Ready Canola they grew in 1998 for feed, and thus obtained no premium for the fact that it was Roundup Ready Canola. Nor did they gain any agricultural advantage from the herbicide resistant nature of the canola, since no finding was made that they sprayed with Roundup herbicide to reduce weeds. The appellants' profits arose solely from qualities of their crop that cannot be attributed to the invention.

On this evidence, the appellants earned no profit from the invention and Monsanto is entitled to nothing on their claim of account.

[42] The plaintiffs rely on what is claimed to be 30 years of jurisprudence applying the differential cost approach. They also referred the Court to an article written by David A. Aylen and Matthew J. Graff, "The 'Differential Profit' Approach in *Monsanto*" in *The Return of the Six-Minute Intellectual Property Law Lawyer*, November 10, 2004, Continuing Legal Education, Law Society of Upper Canada, in support of their position. Aylen and Graff argue that the "best non-infringing option" has not been an established aspect to the accounting remedy, and question whether the Supreme Court intended for this approach to be broadly applied. They suggest that the Court fashioned this remedy in the *Schmeiser* case "to absolve the defendant of pecuniary liability since he appeared to the court as an 'innocent user'".

[43] The "innocent user" is a term used by Professor Norman Siebrasse in his paper ["A Remedial Benefit-Based Approach to the Innocent User Problem in the Patenting of Higher Life Forms" (2004), 20 *C.I.P.R.* 79], cited by the Supreme Court in *Schmeiser*, to describe someone who, through no fault of his own finds plants from patented seed growing on his land. This is said to be possible when dealing with higher life forms such as the ROUNDUP READY seed which is more likely to escape from a planted field onto other land. He asks whether that innocent user, that farmer, ought to be liable for patent infringement in those circumstances. This, he writes [at page 79] "is the problem of the innocent user." As we have seen, the findings of fact regarding Mr. Schmeiser and the ROUNDUP READY canola growing on his farm remove him from the innocent user category. He planted the crop knowing what it was and he took active steps to ensure that most of the crop he planted was from ROUNDUP READY seed. The Supreme Court at paragraph 95 of the majority judgment writes: "[O]n the facts found by the trial judge, Mr. Schmeiser was not an innocent bystander; rather, he actively cultivated Roundup Ready Canola." On this basis alone, one may reject the plaintiffs' claim that *Schmeiser* has to be read as the Court fashioning a remedy to absolve the defendant of his innocent use of the patented seed.

[44] The plaintiffs, together with Messrs. Aylen and Graff, submit that had the Supreme Court intended to overrule 30 years of precedent it would have addressed *Teledyne* and subsequent jurisprudence. That the Court did not do so, they submit, supports their position that the Court was addressing the equity demanded by the particular facts in *Schmeiser*. I am not persuaded that the Supreme Court's stated preference for the differential profit approach can or should be so narrowly construed.

[45] The Supreme Court relies heavily on and arguably adopts Professor Siebrasse' analysis of an accounting of profits. He argues for the differential profits approach as the proper methodology to be used in an accounting of profits because it equitably addresses the innocent user problem. That does not mean that he limits its application only to the innocent user problem; rather, his thesis is that because this approach addresses the innocent user problem, it is the proper approach to follow when performing an accounting of profits in any situation.

[46] An appropriate starting point to the discussion, and that used by Professor Siebrasse, is the observation that it has long been held that there are occasions when, in spite of there being an infringement, an accounting of profits, to be equitable, requires an apportionment of the profits made

between the infringer and the patentee. He writes [at page 83]:

It is uncontroversial that an apportionment is sometimes necessary. It is also universally acknowledged that the governing principle is that the patentee is only entitled to that portion of the infringer's profit that is causally attributable to the infringement.

[47] Sometimes, the patentee will be entitled to nothing because none of the profits are causally attributable to the invention. In this scenario it may be that notwithstanding that the wrongdoer used the patented product, none of the profits so earned were as a result of using the invention. The *Schmeiser* case is an illustration of this scenario as was subsequently explained by Justice Binnie in *Bristol-Myers Squibb Co. v. Canada (Attorney General)*, 2005 SCC 26, [2005] 1 S.C.R. 533, at paragraph 52. He noted there that linking the making of a profit to the use of the patented product is insufficient. When performing an accounting of profits the causal link must be between the profits made and the invention that is protected.

As pointed out by this Court in *Monsanto Canada Inc. v. Schmeiser*, [2004] 1 S.C.R. 902, 2004 SCC 34, the patented *invention* is not necessarily co-extensive with the patent *claims*. The distinction was critical in that case to the issue of remedy. While farmer Schmeiser had used the patented *product* (Roundup Ready Canola seed), he had not taken advantage of the patented *invention* (its herbicide-resistant property) because he had not sprayed his crop with Roundup. The Court thus rejected Monsanto's claim to Schmeiser's profits from his canola crop.

The difficulty with the trial judge's award is that it does not identify any causal connection between the profits the appellants were found to have earned through growing Roundup Ready Canola and the invention. On the facts found, the appellants made no profits as a result of the invention. [Emphasis in original; para. 103.]

[48] Sometimes, the patentee will be entitled to all of the wrongdoer's profits derived from the invention without any offset because all of the profits are causally attributable to the infringement of the invention. In this scenario it may be said that but for the infringement, the infringer would have earned no profits. The U.S. case of *Manufacturing Company v. Cowing*, 105 U.S. 253 (1881), discussed by Professor Siebrasse, is an example of this scenario. The patent there in issue was for an improvement to a pump. The Circuit Court had held that the defendants were only liable to disgorge the profits that would have been realized from the sale of the patented part separately. The U.S. Supreme Court rejected that view, holding that it is necessary to contrast the profits made by infringing the patent to those that otherwise would have been made. It found that the patented part was such an important improvement to the pump that but for that part, no other pump could, at that time have been sold. Thus, without the infringement, no sales could have been made and thus no profits made. Therefore, the Court awarded the entirety of the defendant's profits to the plaintiff.

[49] A similar illustration may be found in *Reading & Bates Construction Co. v. Baker Energy Resources Corp.*, [1995] 1 F.C. 483 (C.A.). In *Reading & Bates* the infringer had used the defendant's patented method when installing a gas pipeline under the St. Lawrence River. It was found that alternative methods, if they were even capable of success, were likely to result in no profit being earned by the defendant given the contracted fee. Therefore, although the Court awarded all of the defendant's profits to the plaintiff saying that one had to look at the profits actually made and not at the profits that could have been made if a non-infringing method had been used, the result was the same. As will be discussed below, *Reading & Bates* is also important in that the Court was prepared

to consider the profits that would have been made had a hypothetical alternative been used, but in the event it did not, as the defendant failed to satisfy its burden of proof as to the profits likely to be generated from that hypothetical alternative.

[50] Sometimes the profits earned must be divided between the infringer and the patentee because while the infringer earned profits, only a part of those profits are causally attributable to the invention. In this scenario it may be said that because of the infringement the infringer earned greater profits than would otherwise have been earned. This requires a comparison between the profits earned as a result of the infringement and the profits that would otherwise have been earned. An illustration of this scenario may be found in *Lubrizol Corp. v. Imperial Oil Ltd.* [1997] 2 F.C. 3 (C.A.).

[51] In *Lubrizol* the patentee had invented a dispersant additive for motor oil and had obtained a patent for motor oil with that additive. Imperial Oil sold motor oil with that additive and the patentee submitted that it was entitled to all of the profits from the sale of the motor oil. The Court of Appeal rejected that submission on the basis that the profits to which Lubrizol was entitled were those directly and causally related to the use of its invention only [at paragraph 15]:

The remedy of an account of profits is an equitable one. Its purpose is not to punish the defendant but simply to have him surrender the actual profits he has made at the plaintiff's expense. But if some part of Imperial's profit on the infringing sales can be shown to have been due not to the appropriation of the Lubrizol invention but to some other factor where is the equity? We were told that Lubrizol contends that Imperial's motor oil infringes another of its patents and has sued in respect thereof. May the same profits be claimed a second time? And if not by Lubrizol what of some third party patentee who likewise claims infringement? And even if no other patents were involved, to allow Lubrizol to take profits which Imperial succeeds in showing were solely attributable to some non-infringing feature of its motor oil would be to judicially sanction Lubrizol's unjust enrichment at Imperial's expense.

[52] *Lubrizol* involved a situation where the patented product was made a part of another product and the Court held that the profit to be disgorged was the difference between the two; in that way the profits disgorged were those with the appropriate causal link, that is, those profits made as a result of the invention.

[53] The application of the differential profit approach in these cases shows why it is to be preferred. In each instance it isolates and identifies the profit that was generated because of the patented invention. In short, it looks to those profits that result from the invention that is protected and eliminates those profits that may be earned but that have no causal link to the invention. Profits that are made that are not attributable to the invention may be retained by the wrongdoer.

[54] It will always be an issue when applying the differential profit approach whether there is a non-infringing alternative that can be used as a comparator.

[55] The decision in *Wellcome Foundation* provides some insight into the limits on a non-infringing alternative. The defendant Apotex argued that it could have obtained a compulsory licence to use the patent from the plaintiff and thus the difference in profits it did earn and those it would have earned if it had such a licence was merely the cost of the licence fee. It was proposing that the best non-infringing alternative was the product it sold, but sold legally under a licence. Professor

Siebrasse questions whether this was a valid alternative [at page 87]:

At the time of the trial the statutory compulsory licensing regime had been repealed; the key question is therefore whether the product obtained under a compulsory licence is to be considered as “open to the public” in applying the differential-profit test. If it is not, then the apportionment arrived at by MacKay J. at trial and affirmed by the Court of Appeal was fully consistent with the differential-profit approach.

[56] I take a somewhat different view of this decision. In my view, that the case involved the compulsory licence comparison is irrelevant. Rather, if the position urged upon the Court by Apotex had been adopted, then the “Catch me if you can” scenario discussed previously would have resulted. If the proper measure of profits to be disgorged involves a comparison to the same product, but manufactured and sold legally, i.e. with a licence, then neither of the purposes of an accounting of profits would have been achieved. In my view, what this and other decisions show is that the next best non-infringing alternative that is to be considered when using the differential profits approach cannot be what one would have done had one complied with the law, i.e. obtained a licence to use the patent. Whether the licence is available through a compulsory scheme or on the open market, is irrelevant. The comparison is to the profit that would have been earned from using the next best product that is not the patented product itself, with the latter acting as a baseline from which to calculate added value. That results in a true reflection of the profits made from the invention—the necessary causal link.

[57] Applying that reasoning to this case, the comparison is not to the profits that Mr. Rivett would have generated had he legally bought the ROUNDUP READY soybean seed and purchased the licence; it must be to soybean seed that has none of the plaintiffs’ invention. Thus, conventional soybean is the appropriate comparator.

[58] Although the plaintiffs argued that the Court should follow *Teledyne* and order all of the profits made by Mr. Rivett be disgorged, I am of the view that the accounting of profits undertaken in *Teledyne* is not necessarily at odds with the differential profits approach endorsed by the Supreme Court. In *Teledyne* the defendant infringed the plaintiff’s patent by manufacturing and selling a unique pulsating shower head. Teledyne already manufactured and sold conventional shower heads; the infringing product was a new and different product line. Thus, there was no reason to believe, and it was not established by the defendant, that if it had not sold the infringing new product, it would have sold an equal number, or any number of conventional shower heads instead. In short, *Teledyne* was a situation where the Court was assessing the profits made by an existing business, by the addition of a new product line, where there was no next-best alternative available that would have generated profit.

[59] It is not reasonable to conclude here, as it was in *Teledyne*, that if the defendant had not sowed, grown and sold the infringing soybean seed, he would not have sowed, grown and sold conventional soybeans. Here, unlike *Teledyne*, there was an alternative available. If the patented seed was not used, the farmer would have used a conventional seed. It is unreasonable to argue that a farmer would have left his fields fallow, incurring lease or tax costs, when they could have been planted and a profit made. In this respect, farming is unlike the manufacturing of novel shower heads.

[60] The final issue that requires examination is whether the defendant must prove that the

comparator non-infringing product was actually available for use or sale or whether it is sufficient to establish that there is such a product, even though it may not be available in reality because of market conditions. This issue arises in this case because the evidence of the defendant, elicited in cross-examination, was that he had no choice but to plant the ROUNDUP READY soybean seed as there were no conventional soybeans available at the local co-op or from the one local farmer whom he asked. In my view, for the following reasons, the market availability of the best non-infringing product is not determinative.

[61] The differential profit approach discovers the value that the invention has brought to the product. For example, in *Lubrizol*, it identified the value that the invention added to conventional motor oil. In the case of ROUNDUP READY canola or soybeans, it is without doubt that there is a value in the product, the crop, that has nothing to do with the invention. Monsanto's patent is not on the plant, or fruit of the plant (the soybeans), but is restricted to the genes and modified cells that make up the plant. The plant and fruit have a value apart from the genes and modified cells. This is evident from the facts in *Schmeiser* [at paragraph 104], and the Supreme Court's reference to profits arising from "qualities of [the] crop that cannot be attributed to the invention." Notwithstanding that Mr. Schmeiser did not exploit the invention, he sold the canola crop and, on the evidence, received exactly the same price as he would had it been conventional canola. The purchaser paid no premium because the soybeans that were purchased contained the patented gene.² Furthermore, as Monsanto's licence requires that none of the beans be saved and replanted or sold other than for consumption, the Monsanto beans had no other licit value over and above conventional beans.

[62] If one uses a comparator only if it is actually physically available for use, but not when it exists but is physically unavailable, the fact that the resulting crop has a value apart from the invention will be ignored. Here, the advantage of the plaintiffs' invention does not lie in the uniqueness of the bean; the fact that it contains the plaintiffs' gene adds no value at the time of sale. It is worth the same as the bean without the gene. The value of the invention is that the farmer who uses it will incur less herbicide-related costs and less trampling of the plants as they need to be sprayed fewer times, thus resulting in a higher yield at a lower cost of production. That is, the profit that flows to the farmer from the plaintiffs' invention is realized in expense saved.

[63] It may be claimed that when the non-infringing product is not actually available, the comparison is hypothetical and thus inappropriate. However, I note that in *Reading & Bates* the Court was prepared to accept evidence, albeit theoretical, that alternative tunnelling methods could have been used. As was noted by Justice Strayer [in *Reading & Bates Construction Co. v. Baker Energy Resources Corp.* (1992), 44 C.P.R. (3d) 93 (F.C.T.D.), at page 108] "that such evidence was 'theoretical' does not deny its existence or entirely destroy its weight." In this case, attaching determinative weight to the vagaries of the local market for conventional soybeans would undermine the ability to isolate profits having a causal link to Monsanto's invention. For these reasons, it is my view that the fact that conventional soybeans are a non-infringing alternative to ROUNDUP READY soybeans is sufficient to permit the Court to use that crop as a comparator, whether or not such conventional seed was in fact available to the defendant in 2004.

[64] Lastly, the plaintiffs submit that the statement of the Supreme Court in *Schmeiser* as to the preferred method of accounting must be seen as *obiter* as the Supreme Court ultimately did not apply the differential profit approach. I disagree. As was noted by Justice Binnie in the *Bristol-Myers*

Squibb Co. decision, the Supreme Court in *Schmeiser* found that there was no causal connection between the profits earned through growing ROUNDUP READY canola and the invention. In my view, the Court did apply the differential profit approach as outlined in paragraph 29 above, but needed to proceed no further than the first question: Is there a causal connection between the profits made and the infringement? As there was none, there were no profits that required an accounting.

[65] For all of these reasons, it is my view that this Court must apply the differential profit approach when conducting an accounting of profits in this case.

b. What are the deductible expenses of Mr. Rivett?

[66] Both parties accept that it is the profits made from the infringement that must be disgorged and that the defendant is properly entitled to deduct from the gross revenue received from the sale of the crop his legitimate and proved expenses.

[67] It is the defendant's burden to prove the costs that are to be deducted from the gross revenues from sales. I accept and endorse the view expressed by Justice Reed in *Diversified Products Corp. v. Tye-Sil Corp.* (1990), 32 C.P.R. (3d) 385 (F.C.T.D.) [at page 390] that any doubt in determining the costs is to be resolved in favour of the plaintiffs:

In establishing an infringer's profits, the plaintiff is required to prove only the defendant's sales; the burden then shifts to the defendant to prove the elements of cost to be deducted from the sales in arriving at profit. Any doubts as to the computation of costs or profits is to be resolved in favour of the plaintiff. At the same time, this does not mean that the infringer must prove expenses such as overhead and their relationship to the infringing product in minute detail. But the defendant bears the burden of explaining, at least in general terms, how claimed overhead costs actually contributed to the production of the infringing product.

However, I am also guided by the fact that the remedy the plaintiffs seek is essentially an equitable remedy and equity must be done to both parties. The Federal Court of Appeal in *Schmeiser* noted at paragraph 85 that if the application of accounting principles in a mechanical fashion results in a quantum that not does reflect the economic profit from the infringement, it is open to a trial judge to adjust the quantum, provided it is done on a "principled basis."

[68] According to the agreed statement of facts, in 2004 Mr. Rivett cultivated 1408 acres of corn, 811 acres of conventional soybeans, and 350 acres of winter wheat in addition to the 947 acres of ROUNDUP READY soybeans. The defendant submitted evidence of expenses from his farming operation that were not, in most instances, specific to the 947 acres of ROUNDUP READY soybeans, but which were incurred across large portions of the farming operation or across the business as a whole. The plaintiffs submitted that unless the expense was shown to relate solely and directly to the 947 acres of ROUNDUP READY soybeans, the Court ought not to accept the expense as one that should lessen the gross revenue received from the sale of that crop. I am not prepared to accept that proposition. Provided there is evidence that the expense was incurred, in part, with respect to the 947 acres of ROUNDUP READY soybeans, a principled basis to allocate that expense is to do so on the basis of the percentage of the acreage of ROUNDUP READY soybeans to the total acreage of the business, unless there was evidence that the expense was incurred with respect to less than the total acreage. On that basis, the applicable percentage is 947 of 3516 acres, or 26.9 percent of the farming operation.

[69] Although it is appropriate to apportion these expenses, the expenses apportioned must be directly related to the ROUNDUP READY soybean crop. In my view, it is not appropriate to consider costs such as general farm insurance, capital depreciation, water, electricity, etc. as would be additionally considered under the full cost approach, discussed above. These expenses are too indirect to be entitled to consideration. In any event, the defendant provided no evidence of such costs.

Fertilizer

[70] The documentary evidence tendered by Mr. Rivett, coupled with his oral testimony speaks to expenditures on fertilizer which the Court is satisfied relate in part to the infringing crop. Exhibit D-2 includes various invoices from Evergreen Liquid Plant Food Ltd. relating to quantities of these fertilizer products purchased in late 2003 and 2004. This information, coupled with knowledge of the acreage Mr. Rivett devoted to each of his crops in 2004 and particularly the proportion of his soybean crop which was infringing, is sufficient to prove deductible fertilizer expenditures on a balance of probabilities.

[71] Mr. Rivett testified that he applied liquid fertilizer to his soybean crops. Fertilizer 5205 is used on soybeans and wheat; liquid calcium is used on soybeans and "some" liquid calcium is used on wheat; and ammonium sulphate and manganese are used on soybeans. Where a product was applied to more than one crop, in the absence of evidence to the contrary, the Court will assume that application rates were similar.

[72] The invoices in Exhibit D-2 indicate a total expenditure of \$13 781.50 on liquid calcium. Assuming this was distributed evenly between the ROUNDUP READY soybeans, conventional soybeans, and winter wheat, the liquid calcium would have been spread over 2108 acres, at a cost of \$6.54 per acre. Thus \$6 193.38 was spent on liquid calcium in relation to the 947 acres of ROUNDUP READY soybeans.

[73] Exhibit D-2 includes a number of invoices relating to Fertilizer 5205 for a total of \$15 704. On the principle that this fertilizer was distributed evenly over the 2108 acres of soybeans and wheat, it would represent an expenditure of \$7.45 per acre. Thus \$7 055.70 was spent on Fertilizer 5205 in relation to the 947 acres of ROUNDUP READY soybeans.

[74] Mr. Rivett's evidence was that he uses ammonium sulphate (Amsul) on soybeans to help them bloom. The invoices for Amsul in Exhibit D-2 indicate expenditures of \$3 600 for Amsul, or an expenditure of \$2.05 per acre. Thus \$1 941.35 was spent on Amsul in relation to the 947 acres of ROUNDUP READY soybeans. There is also a \$350 invoice for manganese in Exhibit D-2. If it were distributed evenly over the 1758 acres of soybeans, this would represent a cost of \$0.20 per acre, or \$189.40 in relation to the 947 acres of ROUNDUP READY soybeans.

[75] The total expenses for fertilizer related to the 947 acres of ROUNDUP READY soybeans, are as follows:

Liquid Calcium	\$6 193.38
Fertilizer 5205	\$7 055.70

• Amsul	\$1 941.35
• Manganese	<u>\$ 189.40</u>
TOTAL	<u>\$15 379.83</u>

Land rent

[76] The plaintiffs submit that land rent should be calculated on the basis of \$49 per acre for the 947 acres of ROUNDUP READY soybeans based on its reading of Exhibit D-3. That exhibit includes a number of rent cheques paid by Mr. Rivett to various landowners in 2004. These cheques do not indicate whether they correspond with tracts of land used to plant the infringing 947 acres of ROUNDUP READY soybeans. However, Exhibit D-4 is of assistance in marrying the rent payments to the field in which the infringing soybeans were grown.

[77] Exhibit D-4 was identified as an audit form prepared by a Monsanto investigator. It sets out the location, collection dates, and acreage where the infringing soybean crop was identified. In his examination-in-chief, Mr. Rivett was able to match a number of the cheques in Exhibit D-3 to the locations identified in Exhibit D-4. Based on this evidence, the Court can conclude that Mr. Rivett rented the following acreage at the rates indicated for the purpose of cultivating the infringing crop in 2004.

- 66 acres at \$60 per acre (Tab 14)
- 20 acres at \$35 per acre (Tab 20)
- 426 acres at \$77.25 an acre (Tab 22)
- 51 acres at \$72.47 / acre (Tabs 23 and 17)
- 41 acres at \$65.85 / acre (Tab 31)
- 5 acres at \$66.26 / acre (Tab 32)

[78] In addition to these rent expenses, Exhibit D-3 includes a copy of cheque 2521 in the amount of \$500, and which Mr. Rivett says is for a part of the rental of 19 acres described as Lot 28, Concession 6 West Half, Adjala Township, on which he grew ROUNDUP READY soybeans. Monsanto submits that this expense of \$500 should be taken as the full rent paid for these 19 acres. Mr. Rivett testified that this cheque represents only part payment to the landowner but he provided no evidence as to the full cost of the lease. There is insufficient evidence to determine what more was paid and thus, the Court will consider the \$500 payment as the full payment for this acreage.

[79] This accounts for 628 of the 947 acres at issue in this case and a total expenditure of \$44 795.62.

[80] Monsanto submits that Mr. Rivett should not be allowed to deduct land rental expenses for which there is no specific record, whereas counsel for Mr. Rivett urges upon the Court that it is obvious that value was exchanged for all of the land rented, even if actual records are incomplete. I agree with the latter that on a balance of probabilities all of the land devoted to the cultivation of the infringing crop in 2004 was rented for value. However, that value appears, in large part, to have been Mr. Rivett's own labour. Counsel for Monsanto took the Court to passages from the discovery of Mr. Rivett wherein it is clear that some of the land was paid for, at least in part, in goods and services to the landowner, e.g., tillage, snow removal, or hay.

[81] I find below that Mr. Rivett is not entitled to any deduction from gross revenue for his labour. The same reasoning applies here. Further, there is no principled basis on which the Court can determine the value of any goods, such as hay, that were exchanged for use of the land he cultivated.

[82] Accordingly, the total deduction from profits to which Mr. Rivett will be entitled in relation to land rent will be \$44 795.62.

Fuel costs

[83] The plaintiffs submit that no deduction should be allowed for fuel costs as Mr. Rivett failed to allocate any such costs to the ROUNDUP READY soybean crop. Fuel is a major expense for any farming operation and is deductible from the gross revenues to the extent it can be proved. Mr. Rivett's testimony coupled with the documentary evidence permits a determination of these costs on a balance of probabilities.

[84] Milligan Fuels Ltd. supplies Mr. Rivett with diesel fuel for tractors and combines. Exhibit D-6 includes Mr. Rivett's account records with Milligan Fuels Ltd., for fuel purchases between January and September 2004. Taking into account that there was an outstanding balance owing on the account at the beginning of 2004, the account information shows expenditures for diesel fuel in that period of \$29 381.51.

[85] Mr. Rivett's evidence was that these fuel expenditures related to his entire farming operation in 2004, that is, the cultivation of soybeans, corn and wheat. He also testified that per acre fuel expenditures are similar from crop to crop, with the exception of wheat which involves marginally higher combining costs, or "a little bit of difference in fuel per acre". I can see no basis on which to reasonably attribute exactly what figure might be assigned to this "little bit of a difference" and thus, find that the costs are spread equally among the crops. The per acre fuel cost for the 3516 acres is therefore \$8.36, or \$7 916.92 for the 947 acres of the ROUNDUP READY soybean crop.

Herbicide

[86] Exhibit D-8 includes a number of invoices for ROUNDUP herbicide, indicating a retail price of \$62.50 per 10 litre jug. Mr. Rivett testified that approximately one litre of herbicide is required to treat one acre of ROUNDUP READY soybean. Monsanto submits that the cost paid for the product was \$6.25 per acre; however, that assumes that it was applied only once to the crop. Mr. Rivett testified that he applied ROUNDUP herbicide to the soybean fields more than once. He testified that it was used to burn down grass and weeds prior to planting, and applied for this purpose at a rate of 1 litre to 1.5 litres per acre, or an average of 1.25 litres. This is consistent with the plaintiffs' evidence (Exhibit P-1) that Monsanto recommends application of a "Roundup herbicide burndown in no-till". Thus, taking this into account, the rate of application of 1 litre per acre proposed by Monsanto understates the actual requirement for this product. I find that the actual amount of ROUNDUP herbicide applied by the defendant to the infringing crop was 2.25 litres per acre. On this basis, the cost of the ROUNDUP herbicide was \$14.06 per acre, for a total cost of \$13 317.19 in relation to the infringing crop.

Stick inoculant

[87] Mr. Rivett testified that HiStick inoculant is applied to soil to help soybean crops nodulate, and that soybean seed is planted at a rate of 70 to 80 pounds per acre. Exhibit D-8 includes a number of invoices for HiStick, indicating a retail price of \$16.10 per 400 gram pouch of this product. Mr. Rivett, on cross-examination agreed that a 400 gram pouch is sufficient to inoculate five 50 pound bags of seed or 250 pounds of seed. In light of Mr. Rivett's testimony, I accept that an average of 75 pounds of seed is required to seed each acre. Therefore, 71 025 pounds of seed was required to plant 947 acres of soybeans. At a price of \$16.10 to inoculate 250 pounds of seed, \$4 574.01 or \$4.83 per acre was expended on HiStick for the infringing crop.

Seaweed

[88] Exhibit D-10 includes an invoice for a fertilizer product called Seaweed. Mr. Rivett used this product on both his conventional and ROUNDUP READY soybean crops, as well as his corn crop. On cross-examination, he testified that one \$135 jug of Seaweed would be sufficient to treat 30 acres of soybeans. On this basis, the expense incurred to treat the infringing crop with Seaweed would amount to \$4.50 per acre, or \$4 261.50 for the 947 acres.

Carbon

[89] Mr. Rivett testified that he uses carbon to soften the clay fields and that he applies carbon to all of his fields, including those devoted to crops other than soybeans. Exhibit D-10 includes an invoice of \$2 585 for 47 carbon jugs. If this product was applied at an even rate to all 3516 acres under cultivation, the per acre expense was \$0.74. This amounts to a total expenditure of \$700.78 for carbon in relation to the infringing crop.

Labour costs

[90] The defendant submits that as Justice MacKay did in *Schmeiser*, the Court ought to reduce gross revenues by a reasonable amount to reflect an allowance for his labour. This aspect of Justice MacKay's judgment was approved by the Federal Court of Appeal. Be that as it may, I am not prepared to provide any offset to take into account the defendant's own labour. The facts here are quite distinguishable from those in *Schmeiser*.

[91] There were two defendants in *Schmeiser*—Percy Schmeiser and Schmeiser Enterprises Ltd. The only party subject to disgorgement of its profits was the corporate entity. At paragraphs 85 to 87 of the decision of the Federal Court of Appeal it is noted that Mr. Schmeiser, rather than paying himself a salary from the corporation, took dividends as a tax saving device. The Court observed that "but for those irrelevant tax considerations, Mr. Schmeiser would have caused his corporation to pay him a salary rather than dividends [which] would have reduced the corporation's profit and, proportionally, the corporation's profits attributable to the 1998 canola crop." In those special circumstances, the Court of Appeal held that the trial Judge had not erred in reducing the award to reflect Mr. Schmeiser's labour.

[92] There is only one defendant here—the personal defendant. Whether he pays himself a salary or takes the whole of the yearly profits of the farming operation at year end, the result is the same—the entire amount is his profit. To permit a deduction for his labour in these circumstances would be

to permit him to keep, rather than disgorge, some of the profits made because of the infringement. That is neither equitable nor just.

Crop insurance

[93] Monsanto admits that on the basis of Exhibit D-11, Mr. Rivett is entitled to deduct from his revenues his expenditures on crop insurance in relation to the infringing crop at a rate of \$18.61 per acre, and I agree. That amounts to a total expenditure of \$12 888.67.

c. Profits to be disgorged

[94] I now turn to the application of the differential profit approach to the evidence in order to determine the profits to be disgorged.

[95] First, we ask whether there is a causal connection between the profits made and the infringement. The defendant here admits to having applied glyphosate herbicide to the ROUNDUP READY soybean crop. Thus, unlike *Schmeiser*, this defendant took advantage of the invention and made profits as a consequence.

[96] Having found the required causal connection between the profits made and the invention, we calculate the gross profits of infringement. Based on the analysis above this is calculated as follows:

Gross Revenue		\$233 311.73
Expenses		
Fertilizer	\$15 379.83	
Rent	\$44 795.62	
Fuel	\$7 916.92	
Herbicide	\$13 317.19	
HiStick	\$4 574.01	
Seaweed	\$4 261.50	
Carbon	\$700.78	
Crop Insurance	\$12 888.67	<u>\$103 834.52</u>
Gross Profits of Infringement		<u>\$129 477.21</u>

[97] We must next ask whether there was a non-infringing option that Mr. Rivett could have used. As previously discussed, cultivation of conventional soybeans is the next best non-infringing option.

[98] As there is a non-infringing option, we must then ascertain what profit Mr. Rivett would have made had he used it. This amount I earlier described as the gross profits of non-infringement. In this case the defendant offered no evidence of the profits he would have made if he had used the non-infringing option, presumably as he urged the Court to apply his modified version of *Teledyne*. However, the plaintiffs did offer such evidence.

[99] Mr. McGuire, when testifying as to the value of the invention from the farmer's viewpoint, introduced a chart prepared by Monsanto that was printed from its Web site (Exhibit P-1). That chart shows the increased profit Monsanto asserts that a farmer can realize using ROUNDUP READY

soybeans over conventional seed. It shows the expected profit return using conventional soybeans, bagged ROUNDUP READY soybeans, and bulk ROUNDUP READY soybean. The greatest profit differential is realized if the farmer uses bulk ROUNDUP READY soybeans. We have no evidence whether Mr. Rivett would have used bulk or bagged seed, and accordingly it is fair that the calculation be based on bulk seed as it generates the greatest profit differential.

[100] The comparison in the Monsanto chart at Exhibit P-1 between bulk ROUNDUP READY soy-bean and conventional soybean is as follows:

	ROUNDUP READY Bulk	Conventional Bin Run
Yield (bu)	39.0	32.9
Price per bushel	\$ 8.75	\$ 8.75
Total Revenue	\$341.25	\$287.88
Seed	\$51.32	\$18.46
Weed Control		
1st application	\$14.69	\$14.69
2nd application	\$ 9.79	\$37.23
Total Seed and Weed Control	\$75.79	\$70.38
Return toward profit/other	\$265.46	\$217.50

[101] In this case the profit differential was even greater than shown in Exhibit P-1 because Mr. Rivett did not pay for the ROUNDUP READY soybean seed that he planted. He inherited it from his father and thus received it at no cost. When the cost of seed is removed from the chart for the ROUNDUP READY soybeans, the return toward profit/other for bulk ROUNDUP READY is increased to \$316.78. Therefore, for every \$1 of profit that would be generated using bulk ROUNDUP READY[®] soybeans, the farmer would have generated only \$0.69 using conventional beans. Thus, 69 percent of every dollar of profit generated using ROUNDUP READY[®] soybeans would have been generated had the farmer used conventional beans.

[102] Mr. Rivett's gross profits of infringement has been found to be \$129 477.21. His gross profits of non-infringement, had he used conventional beans, would have been \$89 339.27. The difference between these two amounts, \$40 137.94, is the profit directly attribut-able to and that results from the infringement of the patent. Accordingly, Mr. Rivett will be ordered to disgorge \$40 137.94 to the plaintiffs.

d. Prejudgment and postjudgment interest

[103] The Federal Court of Appeal in *Reading & Bates* observed that the general rule in an accounting of profits is that there is an award of compound prejudgment interest [at page 504]:

... compound pre-judgment interest as deemed earnings on the profits is the rule, subject to a Court's discretion to mitigate it or to award only simple interest in appropriate circumstances. The good faith of the infringer is certainly a criterion that a judge can take into account in the exercise of his discretion. Other factors could include the highly debatable validity of the patent claim or the fact that compounding the interest may each

beyond equity into the realm of punishment. [Footnote omitted.]

[104] In this case, I see no factors that would mitigate an award of compound prejudgment interest. The defendant knew that the seed he was planting was patented and knew that he needed a licence to grow it. He is not someone who, in good faith, nonetheless infringed the patent. Accordingly, the defendant is required to pay prejudgment interest on the profits to be disgorged from the date on which he made those profits to the date hereof.

[105] The evidence in the record is that the defendant sold the yield from the ROUNDUP READY soybean seed he planted in stages from late 2004 to mid 2005. The evidence appears to indicate that he had received some of the proceeds by way of a loan, payable when the crop was sold. However, it is not possible to calculate a date for the commencement of prejudgment interest with any degree of precision. The plaintiffs propose that it commence on April 28, 2005, which was the date of one of the sales, approximately at the mid-point of the sale cycle. The defendant made no submission on prejudgment interest and, in the circumstances, the date proposed by the plaintiffs is accepted as reasonable.

[106] Section 36 [as am. by S.C. 1990, c. 8, s. 9; 2002, c. 8, s. 36] of the *Federal Courts Act* [R.S.C., 1985, c. F-7, s. 1 (as am. by S.C. 2002, c. 8, s. 14)] provides that the laws of the province respecting prejudgment interest apply to any action that arose in that province. All the infringing activities of Mr. Rivett occurred in Ontario and thus prejudgment interest is fixed by reference to Ontario law. The plaintiffs proved that under Ontario law, prejudgment interest on the profits award should begin to accrue from the date the defendant obtained the revenue from his infringing activities at the rate of 2.8 percent compounded on a semi-annual basis from April 28, 2005, to the date of judgment.

[107] Section 37 [as am. *idem*, s. 37] of the *Federal Courts Act* provides that interest on judgments is also fixed by reference to the law of the province where the cause of action arose. The plaintiffs provided evidence that the rate of interest in Ontario on judgments issuing in the first quarter of 2009, such as this judgment, is set at 4.0 percent.

e. Costs

[108] The parties jointly requested that the Court defer making any award of costs until the other issues raised in this action had been determined. They both wished an opportunity to file written submissions. I will therefore allow the plaintiffs two weeks to prepare a submission on costs not to exceed 10 pages in length. The defendant shall have a further 10 days to respond with a submission not to exceed 10 pages in length. The plaintiffs shall then have 3 days to reply with a submission not to exceed 5 pages in length.

Summary and Conclusion

[109] I have found that the total amount of profits to be disgorged by the defendant and paid to the plaintiffs is \$40 137.94. The plaintiffs are entitled to prejudgment interest at the rate of 2.8 percent compounded on a semi-annual basis from April 28, 2005, to the date hereof and are entitled to postjudgment interest from the date hereof until payment at the rate of 4.0 percent. The matter of

costs is reserved pending the receipt of further submissions from the parties.

[110] The Court is aware that the quantum of the disgorgement may not be seen by the plaintiffs to carry with it the severe deterrent effect they had hoped; however, the choice of remedy was the plaintiffs'.

[111] In accordance with rule 394 of the *Federal Courts Rules*, counsel for the plaintiffs is directed to prepare a draft judgment, to be supplemented later, if necessary with additional terms to be settled, and to circulate the draft to counsel for the defendant for comment, within 30 days of the filing of these reasons. If the terms so proposed are not agreed upon by the defendant, the Court would consider written submissions or will hear counsel by teleconference, on the terms of judgment.

¹ Monsanto's Exhibit P-1, discussed in these reasons, shows a calculation of profits made using its product and using conventional seed and Monsanto in this comparison assumes the same sale price for these crop yields.

² Mr. Rivett testified that in fact there are some who now pay a premium for soybeans that are not genetically modified.

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