

ONTARIO  
SUPERIOR COURT OF JUSTICE

**BETWEEN:** )  
)  
HER MAJESTY THE QUEEN ) Carol Shirtliff-Hinds, for the Crown  
)  
- and - )  
)  
YUK YUEN LEE, JING ZHANG HUANG, ) Darren S. Sederoff for Mr. Lee, Martin  
LUNG WAI CHAN and DAVID ZHENG ) Kerbel, Q.C., for Mr. Huang  
)  
Defendants )  
)  
) **HEARD:** April 10, 2017

**REASONS FOR DECISION ON GARDINER HEARING**

**EDWARDS J.:**

**Introduction**

- [1] A jury convicted Mr. Lee and Mr. Huang of production of marijuana contrary to s. 7(1) of the *Controlled Drugs and Substances Act (CDSA)* and possession of marijuana for the purposes of trafficking. The issue that this Court has to determine in this Gardiner hearing is the number of marijuana plants which forms the basis for the convictions.
- [2] As long as one or more of the specific aggravating circumstances set forth in s. 7(2)(b)(v) and (vi) of the *CDSA* are engaged both Mr. Lee and Mr. Huang face a mandatory minimum jail term of three years if it is determined that the number of marijuana plants involved were more than 500 plants. In this case, the Crown suggests that the aggravating factor engaged is that both Mr. Lee and Mr. Huang used real property belonging to a third party in committing the offence (*CDSA* s. 7(3)(a)).

**The Facts**

- [3] On August 10, 2012, members of the York Regional Police Grow Team undertook surveillance on Mr. Lee, which lead them to an industrial building located at 419 Attwell Drive, Toronto, Ontario (Attwell).

- [4] On April 23, 2013, members of the York Regional Police covertly entered Attwell under the authority of a general warrant. The evidence of these officers at trial confirmed that a strong odour of vegetative marijuana was detected. Marijuana plants and hydroponic grow tables were also observed. A further covert entry occurred on April 25, 2013, also under the authority of a general warrant. At this time, in excess of 3,200 marijuana plants were growing in the building. A hydro bypass was observed. Photographs and samples were also taken.
- [5] On May 28, 2013, investigators from the York Regional Police again covertly entered Attwell, also under the authority of a general warrant. At this time 3,780 marijuana plants were growing in the building, as reflected in various photographs that were entered into evidence at trial.
- [6] On June 24, 2013, the Toronto Police Service and York Regional Police dismantled the grow operation at Attwell. At this time 2,240 plants were seized, along with 160 ballasts, 185 high intensity light bulbs, 221 light sockets, 3 timing boards, 2 fans and a shredder. All of this equipment is associated with a marijuana grow operation.
- [7] Detective Paul MacIntosh of the Durham Regional Police Drug Enforcement Unit was qualified as an expert in marijuana grow operations, and provided evidence largely based on his review of the photographic evidence taken by the York Regional Police at Attwell on the aforementioned dates. Detective MacIntosh reviewed the photographs taken on April 25, 2013, and provided the necessary background evidence to differentiate between marijuana seedlings or clones and marijuana plants in the later stages of growth. He also provided evidence with respect to the type of equipment seen in the various pictures, as well as the methodology used in what is described as the cloning process. Detective MacIntosh, in his review of the photographs of April 25, 2013, noted what he described as the growing tables containing marijuana plants both in a vegetative state and further along in their growth after they had been placed into pots.
- [8] At Attwell, Detective MacIntosh noted in the photographs what he described as various pots with holes in the bottom, which he testified would allow the water from the hydroponic tables to flow through them, ultimately allowing the nutrients to be in constant contact with the roots of the plants.
- [9] Detective MacIntosh also reviewed photographs taken by the York Regional Police at Attwell on May 28, 2013. At this time, 3,780 marijuana plants were counted by the York Regional Police. Detective MacIntosh noted, from his review of the various photographs, that they appeared to be similar to those that he had seen in the photographs taken on April 25, 2013.
- [10] Detective MacIntosh also reviewed the photographs taken on June 24, 2013, when the grow operation at Attwell was dismantled. Detective MacIntosh reviewed the various items of evidence that were seized on June 24, 2013, which included 2,240 marijuana plants and various items associated with a marijuana grow operation, including timing boards, ballasts, lights, sockets, fans and other related items. Detective MacIntosh reviewed the difference in growth between the marijuana plants observed in the

photographs taken on May 28, 2013 and those reflected in photographs taken on June 24, 2013.

- [11] Having reviewed the various photographs and made the observations that he did, Detective MacIntosh offered the opinion that this was not a “mom and pop” grow operation, but rather was one of sophistication designed to produce more than one crop. Detective MacIntosh noted that from the time that the cloning process takes place to harvest is, generally speaking, three months. Detective MacIntosh was of the view that based on his observations the grow operation at Attwell could produce three cycles per year. He also indicated that a cost to set up the grow operation, based on the various items observed in the photographs and the items seized on June 24, 2013, would have been in the order of approximately \$43,000 for the ballasts alone.
- [12] Detective MacIntosh was asked to assist the Court with respect to the smell of marijuana, and he testified that in his view 2,240 marijuana plants in a commercial building would have a distinct smell, which he described like the smell of a skunk.
- [13] As for the value of the marijuana at the grow operation when the plants were seized on June 24, 2013, Detective MacIntosh suggested that 2,240 plants would generate 8,960 ounces, which would have a street value estimated to be in the range of \$180 to \$250 per ounce. If my math is correct, this would result in a street value for the marijuana seized on June 24, 2013 ranging between approximately \$1.6 million and \$2.2 million.
- [14] When the grow operation was dismantled on June 24, 2013, three samples were taken by Detective Kennedy of the York Regional Police. One sample was taken from each room where the marijuana was located at Attwell. The samples were then sent to Health Canada where they were analyzed by Dun S. Leing. Mr. Leing is a chemist with Health Canada. He testified that based on his analysis of the three samples they were all marijuana cannabis.

### **The Issue**

- [15] The central issue that I have to determine on this Gardiner hearing is whether or not, based on the aforementioned evidence, it can be said that all of the 2,000 plus marijuana plants counted by the York Regional Police on June 24, 2013 were marijuana. Put differently, can it be said that three samples that were tested and confirmed as marijuana establishes beyond a reasonable doubt that all of the remaining marijuana plants were also marijuana.

### **Position of the Crown**

- [16] The position of the Crown, in essence, is that the Attwell premises contained a fully functioning marijuana grow operation with 2, 240 plants in various stages of growth.
- [17] Dealing with the sampling issues raised by the defence, the Crown argues that there is nothing in the *Criminal Code* which mandates the number of samples that should be taken in a situation such as the one presented to this Court. As well, the Crown argues that in determining the number of plants, the evidence established from the samples is not the only evidence that this Court should consider in determining whether or not the Crown has

proven beyond a reasonable doubt that all of the plants were marijuana. In that regard the Court has to consider all of the other evidence, which included the evidence from the various police officers with respect to the smell of marijuana, as well as the observations made and photographs taken of the grow operation in operation. Rhetorically, the Crown asks why would anyone be growing anything other than marijuana in the volume demonstrated from the photographic evidence, other than to grow marijuana and make the substantial profits that are attendant with that type of grow operation.

**Position of the Defence**

- [18] In support of the position advanced on behalf of Mr. Lee and Mr. Huang, Professor Jeffrey Rosenthal was called as an expert witness. Professor Rosenthal was qualified to provide opinion evidence with respect to sampling and statistical certainty. Professor Rosenthal is a Professor of Statistical Sciences with a PhD from Harvard University.
- [19] In coming to the opinion that he did, Professor Rosenthal was provided information with respect to the number of marijuana plants seized in the various rooms at Attwell and the number of samples that were taken. He also reviewed various authorities, including a document from United Nations Office on Drugs and Crime entitled, "Guidelines on Representative Drug Sampling".
- [20] Professor Rosenthal noted that when testing drugs and pharmaceuticals it is usually recommended to take a number of samples equal to the square root of the number of items,  $\sqrt{n} + 1$ .
- [21] Using the square root  $\sqrt{n} + 1$ , Professor Rosenthal testified that the 1,378 marijuana plants counted on April 25, 38 samples would usually be recommended and, as such, taking just two samples would not be adequate.
- [22] As for the samples taken on April 25, 2013, Professor Rosenthal testified that from a statistical analysis perspective one could be 99 percent confident that at least 138 of the 1,378 plants and at least 18 of the 1,850 clones were marijuana. As for the samples taken on June 24, 2013, Professor Rosenthal testified that from a statistical analysis perspective he would be 99 percent confident that at least 16 of the plants and at least 5 of the clones were marijuana - this out of a total of 2,240 plants and clones counted by the police on that date.
- [23] Crown counsel took issue with respect to Professor Rosenthal's credibility and the use that he made of the various outside sources referenced in his footnotes. Crown counsel suggests that Professor Rosenthal, in his evidence misrepresented the footnote evidence, and that this substantially undermined his credibility. It was argued that many of the footnotes referenced in Professor Rosenthal's report related to pharmaceuticals and not to a marijuana grow operation.
- [24] Professor Rosenthal agreed that from a statistical analysis perspective sampling in the pharmaceutical industry is important to ensure that from a quality control perspective, the consuming public has a high degree of confidence that the drugs that they are prescribed meet quality control standards. When questioned as to how the footnote evidence could

therefore support his statistical analysis of marijuana plants, Professor Rosenthal suggested to the Court that while he was not an expert in determining what evidence was necessary to determine an accused's guilt beyond a reasonable doubt, that it made sense from his perspective, much like the consuming public is interested in knowing the pharmaceuticals it consumes are good quality, that the Court had an equal concern in ensuring that an accused should only be convicted based on proper statistical sampling.

- [25] I did not find Professor Rosenthal lacking in credibility. His evidence was offered in the manner that one expects of an expert. He did not demonstrate any bias. His evidence did not misrepresent in any way the information that he relied upon.
- [26] During the trial Mr. Sederoff, on behalf of Mr. Lee, called Detective Tyler Stewart to provide evidence with respect to his involvement in a marijuana grow operation. Detective Stewart is with the Ontario Provincial Police (the OPP), and was employed with the Drug Enforcement Team. He had experience investigating between 10 and 30 marijuana grow operations. He testified that he had been an affiant for search warrants and had searched for drugs. He testified that with respect to his role concerning drug certificates, if a warrant was issued and drugs were seized then samples would be sent to Health Canada for analysis.
- [27] Detective Stewart testified with respect to his involvement at a marijuana grow operation where he oversaw the various samples. On the particular occasion to which he testified, he noted that 1,772 plants were found and 51 samples were taken, of which 29 were ultimately determined to be unsuitable. Detective Stewart testified that there was no specific policy for sampling in the OPP, and that determination of the appropriate number of samples was up to an officer's discretion. He noted that the goal of the sampling process was to be as objective as possible, so that the Court would have a high degree of confidence that with the samples taken and the total number of marijuana plants counted they were all marijuana.

### Analysis

- [28] Prior to March 13, 2012, there was no mandatory minimum sentence for the offences for which Mr. Lee and Mr. Huang have now been convicted. The Crown has given notice that it intends to, at the very least, seek the mandatory minimum provided for in s. 7(2)(b)(vi). As such, subject to the constitutional challenge which the defence has indicated it will proceed with subsequent to this Gardiner hearing, Mr. Lee and Mr. Huang face a potential mandatory minimum sentence of three years in prison.
- [29] The Crown has the onus of establishing beyond a reasonable doubt that based on all of the evidence, including the three samples which tested positive for marijuana, that the grow operation at Attwell had in excess of 500 marijuana plants.
- [30] I was referred to no authorities other than *R. v. Malenfant*, 2015 BCSC 2206, where the defence had challenged the number of marijuana plants found in a grow operation. In *Malenfant*, *supra*, the defence filed an expert opinion from a statistician who provided an opinion to the Court concerning the sampling process. The statistician in question provided

an opinion concerning the sampling scheme utilized by the police, and concluded that because the sampling mechanism was unknown the “tools of probability cannot be utilized in the assessment”.

- [31] The opinion of the statistician in *Malenfant* was not subject to cross-examination and, as such, Humphries J. concluded that the statistician’s opinion was of limited use and application.
- [32] Other than *Malenfant*, I was referred to no other cases that challenged the sampling process. In the case before this Court, Professor Rosenthal not only authored an expert’s report but his evidence was tested in cross-examination. I have already determined that Professor Rosenthal was a credible witness.
- [33] I was provided with no evidence with respect to what, if any policy the York Regional Police – or for that matter any other police force in this province, uses in terms of establishing the adequacy of the sampling process in connection with a marijuana grow operation. Where Parliament has provided a mandatory minimum sentence based on the number of marijuana plants found in a grow operation, one can only speculate as to why there is no policy concerning a sampling process. To leave the sampling process and the determination of the number of samples to the discretion of the investigating police officer, leaves the Crown in the unenviable position of having no evidence to assist the Court as to why a certain number of samples might be taken in one case and another number of samples in another case.
- [34] One of the sources of information relied upon by Professor Rosenthal was a document entitled “Guidelines on Representative Drug Sampling”, prepared by the Laboratory and Scientific Section of the United Nations Office on Drugs and Crime. This document appears to have been authored in 2009. Dealing with the considerations and recommendations for sampling, the authors state at page 27:

The basis of sampling is that the composition found in the samples taken reflects, in principle, the composition of the whole lot. As a consequence, only a fraction of the total packages in a seizure can be investigated. Sampling is an intentional choice to refrain from doing things to (unnecessary or impossible) perfection, for reasons of efficiency and cost effectiveness...

- [35] The authors also go on to state under the subheading The Aim of Sampling:

Actually, a sampling strategy is fully dependent on the question, and thus the problem, that has to be solved. There may be different needs for prosecution of possession, production, or trafficking. The question usually arises from the national law, or from a national policy (habit) or sometimes directly from the prosecutor’s opinion or from the police staff.

The sampling procedure simplified, in a sequence of increasing workload:

- A. Minimal sampling: Is a drug present? (This may require one positive result.)
- B. Increased sampling: Is a drug present in (more than) a specified proportion of the items?
- C. Maximum sampling: Is a drug present in *all* the items? (This may require full analysis of all items, which will lead to unrealistic costs, especially for large numbers of units.)

[36] It is not for this Court to instruct drug investigators from the various police forces in this province as to the proper method of sampling. However, to leave the determination of the number of samples without any policy or guidelines to the investigating police officer in charge of the investigation results in a sampling process that is nothing but arbitrary. The observations of the authors of the Guidelines on Representative Drug Sampling at page 32 may however be instructive here in Ontario:

...if police or customs are doing the sampling, they should be guided by easy-to-understand instructions...

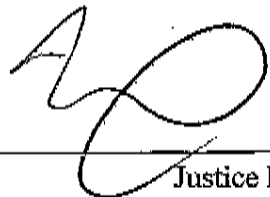
[37] Sampling and the appropriate sampling policy is but one part of the evidence which the Crown may rely upon to determine the number of plants in a marijuana grow operation. The other evidence which this Court must consider includes the evidence from the various police officers who testified at trial concerning the smell at Attwell, the methodology adopted at Attwell for the growing of marijuana, i.e. the hydroponic method, the equipment seen at Attwell including the number of ballasts, high intensity light bulbs, timing boards and other photographic evidence, all of which evidence establishes that this was not - to use the words of Detective MacIntosh, a "mom and pop" grow operation.

[38] I accept the evidence of Detective MacIntosh that this in fact was a significant marijuana grow operation. That, however, does not translate into a finding by this Court on this hearing that the Crown has established, for the purposes of the mandatory minimum provided for in s. 7(2)(b)(vi), that Mr. Lee and Mr. Huang were in control of a production that exceeded 500 marijuana plants. If the Crown intends to rely on a mandatory minimum, the Crown has the obligation to prove beyond a reasonable doubt the number of marijuana plants. To simply suggest, as the Crown did in closing argument on this Gardiner hearing, that there could be no other explanation for anyone being involved in the process that was observed at Attwell other than to be involved in a significant marijuana grow operation, in my view does not meet the test required to establish the number of plants that would thereby entitle the Crown to rely on the mandatory minimum.

[39] There is an obligation on the Crown and the York Regional Police, as well as any other police force in the Province of Ontario, to have in place a methodology that the Court can rely upon with a high degree of confidence in establishing the number of marijuana plants in a marijuana grow operation. No such policy or methodology exists based on the evidence before this Court. While this Court does not need the very high degree of confidence in the quality control statistical sampling process in the pharmaceutical

industry, this Court does have an interest in ensuring that where a mandatory minimum sentence is to be imposed that the Crown has proven beyond a reasonable doubt what it is required to prove, i.e. the number of marijuana plants. Part of that proof involves something more than an arbitrary sampling process which appears to have been adopted in this case.

[40] While I do not accept that the Crown has established the number of marijuana plants, thereby allowing the Crown to rely on the mandatory minimum, I nonetheless accept the evidence of Detective MacIntosh for the purposes of sentencing that Mr. Lee and Mr. Huang were involved in a substantial marijuana grow operation. That finding, in my view, has been proven beyond a reasonable doubt based on all of the evidence, including the photographic evidence, all of which demonstrates that what was happening at Attwell was a substantial marijuana grow operation. I leave it to counsel to make what submissions they wish to make as to the level of involvement of Mr. Lee and Mr. Huang in that grow operation.



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Justice M.L. Edwards

**Released:** April 19, 2017