

**Natalie Jaroszewski**

**LPAT: Participant Statement**

**SLIDE 1** - Map

**SLIDE 2**

Good Morning Sir,

My name is Natalie Jaroszewski and I live at 4949 Eramosa 6<sup>th</sup> Line, I've lived here my entire life on the mushroom farm, W & T Mushrooms Ltd. You could say that I was born into the industry.

Allow me to give you some background information about my family business so you have a better understanding of what it entails to be a mushroom grower producing locally fresh product and reaching consumers.

**History of W&T Mushroom LTD:**

**SLIDE 3** My father, Witold Jaroszewski an electronics engineer, escaped from Communist Poland to start a new life in Canada in 1982. In 1984 he purchased our farm which was then a dilapidated mushroom farm in an agricultural area. When he purchased the property it only consisted of one growing room which was 2000 sq. ft. Throughout the years Witold would build and expand the concrete block building adding to the facility which currently consists of six growing rooms, **SLIDE 4** picking corridor, filling corridor, cooler, storage as well as offices. We have 12,000 square feet of growing area and 10,000 square feet of production facility.

In 2000 Witold invested hundreds of thousands of dollars allowing him to upgrade the entire facility to the Dutch Growing System. We purchased equipment in order to be fully sufficient in the filling and emptying process. We changed our wooden beds to aluminum, investing in picking lorries, a sophisticated air handling system as well as **SLIDE 5** a computerized growing system.

Yes, these computers that are sensitive to vibrations assist me in the growing procedure; they enable me to control each room's specific environment.

Witold also was the one who paid for the natural gas line to be extended from Rockwood onto our mushroom facility which is around 6 km.

In 2007 W&T Mushroom switched to growing exotic mushrooms such as Oyster and Shitake. With zero knowledge, Witold began to develop his own recipe for the growing medium as well as designing and building equipment. By 2011 W&T Mushroom was producing on a commercial scale supplying the local and competitive southern Ontario market with quality product.

With the development of this particular growing medium recipe it allowed us to produce not only Oyster and Shitake mushrooms but also King Oyster, Maitake, Enoki and Reishi.

Seeing as our facility is designed for *Agricogus Bisporus* we switched back in mid-2015, this time putting the focus on Cremini and Portabello mushrooms.

Let me give you a Crash Course in mushroom cultivation:

Farming in general in today's day and age is stressful and difficult enough. It is extremely challenging to sustain a livelihood on a regular day never mind having the threat of a quarry open for business 30m away from our property line.

Every day is different and brings a new challenge in farming, ask any type of farmer be it a corn, wheat, cow, bean or mushroom farmer. I can assure you if asked the question then: "Why do you do it?" our answers would be along the same lines explaining that it's the passion and challenge that drive us to learn and strive to be better than we were. It's the simple things such as **SLIDE 6** providing quality product to customer's tables that make me get up at the crack of dawn or even way before, loading up the truck to commute to the Ontario Food Terminal in Toronto in order to supply fresh local produce to your table. If it's -28 or +28 my product is demanded by the customer and I need to deliver it, making sure they have the freshest product on site.

We work tirelessly and when a customer comes up to me at the St. Lawrence Market for example, and says "Wow those are beautiful" or "Your mushrooms are amazing" the challenges that I faced that day disappear somehow, even if it's for a moment.

So let's begin the crash course of mushroom cultivation: Don't worry I will be brief...

### **White/ Brown Mushrooms:**

**SLIDE 7** The process starts with the supply of compost transported every week to our farm in a 53 foot tractor trailer. The substrate has a different story to tell each time, **SLIDE 8** it could be dry or wet; the straw could be short or long. At that point I need to make a quick decision as to how to proceed with the fill and make sure that I am able to produce the quantity and quality that allows me to sustain the farm. **SLIDE 9** The first 10 minutes of filling the room is the most

crucial. I set up my head filler machine to the appropriate **SLIDE 10** compost depth as well as my **SLIDE 11** peat moss depth.

Once the room is filled with the **SLIDE 12** substrate the real fun begins, **SLIDE 13** the first 5 days are focused on the compost temperature and watering. We all know that mushrooms are 80% water. We use 44,000 to 45,000 litres of water weekly for watering and production process. The battle with the compost temperature is critical. I want the temperature to hover around 24.5°C in order for the mycelium to come up through the peat moss. Once the mycelium is 70% visible on top of the peat moss I am able to start the “flushing” process.

**SLIDE 14** Flushing means that I introduce fresh air into the room and with the suitable CO2 and rh values I begin to create a stagger formation of pins for the next 5 days. The computer assists me with the values, **SLIDE 15** however I need to physically walk into the room and figure out what the room needs. The formed pins or mushrooms also tell me what they want.

**SLIDE 16** 14 days after the fill and if everything goes well the first crop is picked. During harvest the work is not done, **SLIDE 17** I still need to check the room and see if the mushrooms need anything. Once the flush is picked the rooms need to be watered, in order for the next flush to grow.

**SLIDE 18** Every room has different challenges and different elements that need to be considered in order to fully produce the maximum quantity from the room. Each room produces three flushes or three crop picks. Once the room is finished **SLIDE 19** we steam, empty, wash and set up for fill. Thus the cycle continues.

### **Oyster Mushrooms:**

The process begins with the making of our unique logs using local supplies such as sawdust, and local grains. These poly-ethylene bags have specialized filters.

These logs then get packed into an **SLIDE 20** autoclave and sterilized for 6 hours in order to kill the `bad bacteria`. Once the sterilization process is completed the logs are taken out of the autoclave and put on a rack in the cleanroom. This particular cleanroom consists of 3 hepa filters. These filters are typically found in hospital operating rooms or facilities where implantable devices like catheters, stents and other cardiovascular devices are manufactured. The air needs to be 99.99% clean so that no contaminants can destroy the sterilized substrate. Once the bags have completely cooled the spawning process begins. The spawn or `seed` is inoculated into the bag, at which point the bag is sealed, tumbled and placed on a rack for the incubation process.

The incubation process is the lengthiest, it typically takes around 3 to 4 weeks for the mycelium to fully colonize in the bag. These bags are in a pristine clean environment controlled by proper filtration. Once the mycelium is colonized then the process of cutting each bag begins, which allows the clean substrate to be introduced to fresh air. **SLIDE 21** The timeframe from cutting the bag to first pick is between 10-12 days.

**SLIDE 22** Once the product is picked and packaged it is then **SLIDE 23** shipped to market.

There are many differences and similarities between **SLIDE 24** Cremini and Oyster Mushrooms, too many to discuss. **SLIDE 25**

However, I do need to point out that mushrooms are a type of fungus. In fungus there are challenges. You need to be prepared in selecting the good bacteria as the food for the mushroom and minimizing the bad bacteria and avoiding viruses.

Cultivating mushrooms needs to have a sterile, clean environment. There are many misconceptions when mushrooms or mushroom farms are mentioned.

**Some of the misconceptions are as follows:**

Stinky, damp, cold, they grow in the dark, zero nutrients

These points could not be further from the truth. For example the shipment of compost smells sweet - I compare it to beer. The rooms do not go any colder than 17°C. As for dampness the highest RH is 94 percent. Like the majority of living organisms, mushrooms do tend to grow into the light. However, once the pick is finished for the day we do turn out the lights.

Nutrients in mushrooms are many and not appreciated by the general public. A couple of examples: mushrooms help reduce blood pressure, arthritis, diabetes, gout, helps kill cancer cells, promotes healthy aging - that's right they are in face creams - they lower cholesterol, boost immune systems and, surprisingly, mushrooms have vitamin D. Those are just some health benefits that mushrooms contribute to healthy living. You would never have known that a **SLIDE 26** Dutch textile designer has created clothing out of mushrooms. Perhaps it's a way of the future. Mushroom mycelium has also been processed to produce biodegradable plastics. Mycelium may be used in the not-so-distant future in your packaging components; IKEA is just one example of a company that is investigating in replacing their Styrofoam packaging with mycelium material. New companies have developed mycelium products like elements for interior acoustic tiles, artificial leather and building panels. Mushrooms can eat plastic, petroleum and CO<sub>2</sub>. These are just a few examples of the benefits and new industries. **SLIDE 27** There's an art behind the science of mushroom production.

### **Refresher of my family`s concerns:**

In my witness statement which was submitted in April 2019. I mentioned air quality. Its common sense that there are bacterial particles floating around us; our immune systems have built themselves up in order to defend our bodies, and help fight off the bad bacteria. We all wash our hands as a way of protecting ourselves from hazardous bacteria. We don't see these pathogens but they are all around us. At the farm we are always alert to the pressure of bacteria building around our facility. We regularly treat the area 30-50 metres from the building just to prevent insects from carrying pathogens into our facility. We often have to call the Township to keep the dust down on 6<sup>th</sup> Line to protect our production.

So let's speculate if the Hidden Quarry is approved. I come home from the Toronto Market using the same route that James Dick proposes to use and I need to wait to enter Eramosa 6<sup>th</sup> Line because of trucks queuing and turning twice, once at the corner and once at the quarry entrance. Yes, I am home sometimes before 7am, having left at 2 or 3 am. It's a hot summer morning, and the quarry has been moving its product, never mind crushing and blasting, just simply moving its product, loading up their trucks, you cannot tell me there will not be more dust than we are currently experiencing. Its common sense that there will be. I check my rooms. A dust born pathogen has entered the building and enters the newest room with me, a room that is best described as a newborn baby. It has no immune system to fight off bacteria, and that pathogen lands on my bed. Then what... I wouldn't be able to see it; I may be able to see a problem 7 to 10 days later. The room is destroyed, there are no mushrooms producing. I've invested into the room thousands of dollars already and I have no product. What then...?

Seeing as it's a hot summer morning, my cooling is not working, there's no water. Ok, I call the quarry hotline, they are gracious enough to tell me they will send a truck by the end of the day. Well tick tock, end of the day is too late. My compost has reached 32°C. It is completely dead, it has overheated. What then...?

My customers refuse to come and pick up their product, they are intimidated in turning onto the 6<sup>th</sup> line. What then... why am I losing the income because someone else is putting money in their pocket...

**SLIDE 28** My parents, my brother, and I use Eramosa 6<sup>th</sup> line numerous times a day, I think one of my neighbours counted that they saw me at least 20 times in one day. Gravel truck drivers cannot see me from a large dump truck like they can from a vehicle. I get hit, or they damage my truck I cannot transport my product to market, then what...

**SLIDE 29** Our home is the farm. We are working outside, taking customer orders or simply mowing the lawn and we get hit by fly rock what then...?

Our cement block building or delicate computers get shaken once too many times by vibrations from repeated blasting – remember our facility is just 50 metres away from the proposed quarry site...what then?

**SLIDE 30 Conclusion**

My father and I have heard the testimony from the JDCL experts. Not one had an ounce of knowledge about mushrooms. We also noted that none of them investigated the agricultural operations in the vicinity of the proposed quarry. We are disgusted at the fact that not one expert or JDCL representative came to have a conversation with us about our operation. Our doors were open for a JDCL expert to come onto our site. It's comical that all they were concerned about were the wells, buying properties around us, but had absolutely no interest in talking to the closest future neighbour. Sir, that looks a little sneaky to us.

Their confidence in the quarry having no or minimal impacts on this agricultural area is notable. The sensitive variables on our mushroom farm relating to air and water, bacteria and CO<sub>2</sub>, and temperatures and timing are challenging to manage under current conditions. We find it hard to believe that everything will stay the same. We do not believe that a quarry is compatible with the current, established farming operations in this area.

If the proposed quarry is approved, W&T Mushroom and my family are concerned that our business will have to close. Should the Tribunal approve the Hidden Quarry my family suggests that the Tribunal rule that certain firm and formal guarantees be made by JDCL which will address any changes which could put us out of business. We would recommend that:

1. JDCL cover costs of air filtering upgrades demanded by an increase in dust-born pathogens;
2. If there is not enough water in our other well for our operation such as watering mushrooms, steaming the room, sanitization, JDCL is responsible for bringing water tanks as required and installing a reservoir.
3. If there is no water for our cooling system, JDCL cover costs for the chiller system and Phase 3 hydro;
4. JDCL cover costs of repairs, over the course of the quarry operation, to the building structure, computers, mushroom beds, and production equipment damaged by the quarry operation.

5. JDCL and W&T Mushroom establish baseline data upon which changes resulting from the quarry operation can be assessed. This way we can be good neighbours and carry on our businesses.

Mr. Chairman: The experts, Mr. Greg Sweetnam and JDCL cannot guarantee to us that there will be no negative impacts from the Hidden Quarry on our operation. Life has taught me that there are many curve balls and in order to proceed with life sometimes you have to accept the curve balls and sometimes you need to fight. **SLIDE 31** Mr. Chairman, on behalf of my family I'm choosing to fight against the proposal of the Hidden Quarry. And before I finish I would just like to take you back to May 21, 2019 when Greg Sweetnam was in this exact spot stating the following: Product is demanded by customers; if we don't make a profit, we go out of business; it's a quality product. Mr. Chairman, all these points apply to me. I thank you for your time and I hope you know a little more about what it takes to be a mushroom grower.