# 37<sup>th</sup> Annual Colorado Bar Association THE OFFICIAL COLORADO CASE PROBLEM



# DAKOTA WEIRS vs. LUSH FERTILIZER INC.



**WRITTEN BY** Colorado Bar Association High School Mock Trial Committee







coloradohighschoolmocktrial.com

#### **Case Summary**

After working for several years with a fertilizer manufactured by Lush Fertilizer, Inc., Dakota Weirs developed Non-Hodgkin lymphoma. The disease has derailed Dakota's life.

Lush Fertilizer products, at least the ones in the United States, contain a chemical bonding agent called Drupho. Drupho is designed to help protect the planet by reducing the amount of nitrates that find their way into streams and lakes, but at what cost? Dakota Weirs claims that Lush Fertilizer knew or should have known that Drupho causes Non-Hodgkin lymphoma but hid or willfully ignored studies that revealed the danger.

Dakota Weirs has brought a negligence claim against Lush Fertilizer, Inc. under the theory that Lush failed to properly warn users about the dangers of its product. Lush Fertilizer denies that Drupho causes Non-Hodgkin lymphoma and counters that, if it does, Dakota Weirs was also negligent for failing to wear protective clothing and a respirator while using it.

(The Case Summary serves only to help place the case in context for the student participants. The information in the Case Summary is not part of the case and may not be used as evidence or stipulated facts.)

#### **AVAILABLE WITNESSES**

## Plaintiff

- 1. Dakota Weirs
- 2. Carson Durst
- 3. Dr. Casey Rogers Expert

## Defendant

- 1. Blake Doncourtt
- 2. Skyler Weirs Expert
- 3. Dr. Devin Williams Expert

#### **EXHIBITS**

- Exhibit 1 Old packaging with ingredient list
- Exhibit 2 List of Lush Fertilizer ingredients in French
- Exhibit 3 Excerpt of study from England indicating Drupho possibly carcinogenic in rats
- Exhibit 4 Email re: Lush in-house study
- Exhibit 5 Non-disclosure provision between Lush and Carson Durst
- Exhibit 6 Casey Rogers CV
- Exhibit 7 Casey Rogers list of published works
- Exhibit 8 Amortization table of cost savings by not baking Drupho
- Exhibit 9 Devin Williams CV

# **STIPULATED FACTS**

- 1. The signatures on the witness statements and all other documents are authentic.
- 2. Chain of custody for evidence is not in dispute.

DISTRICT COURT JEFFERSON COUNTY, COLORADO 100 Jefferson County Parkway Golden, Colorado 80401		
Plaintiff:	DAKOTA WEIRS	
v.		▲ COURT USE ONLY ▲
Defendant:	LUSH FERTILIZER INC.	Case Number: 2021CV303720 Courtroom: 401
PRETRIAL RULINGS		

THIS MATTER comes before the Court following a hearing on the Plaintiff's Motion to Preclude Purported Expert Testimony and the Defendant's Motion to Limit Damages. The Court, having considered the related filings, finds and rules as follows:

#### **Motion to Preclude Purported Expert Testimony**

The Plaintiff objects to Skyler Weirs testifying as an expert witness regarding modern "agritech." An expert witness is not required by Rule of Evidence 702 to hold a specific degree, training certificate, accreditation, or membership in a professional organization. Instead, a court may qualify an expert witness on any of the five factors listed in the rule: knowledge, skill, experience, training, or education. Nevertheless, an expert witness must still provide an understandable explanation of his or her qualifications. By offer of proof, the Defendant asserts it can show that Skyler Weirs spent considerable time researching agritech companies by reviewing publications written by those companies, research studies referenced in those publications, and information maintained by the USDA and NASDA. If such facts are confirmed at trial, they are sufficient to establish the witness has specialized knowledge beyond that held by the average juror, and the witness will be allowed to provide testimony under Rule 702 regarding agritech.

Accordingly, the Motion to Preclude Purported Expert Testimony is denied at this time.

#### **Motion to Limit Damages**

C.R.C.P. 26(a)(1)(C) required the Plaintiff to provide the Defendant with a description of the categories of damages sought and a computation of any category of economic damages claimed by the Plaintiff. The Plaintiff's Initial Rule 26(a) Disclosures stated simply:

The Plaintiff seeks to recover damages for physical and mental pain and suffering, emotional trauma and distress, inconvenience, emotional stress, and impairment of the quality of life, in an amount to be determined at trial.

Since these are all non-economic damages, the Plaintiff was not required to provide a computation of the amounts of those losses. *Instead, the Plaintiff must argue the amount of such damages to the jury.* 

The Plaintiff never provided a disclosure to the Defendant identifying any economic

damages, such as lost earnings, damage to the Plaintiff's ability to earn money in the future, or medical, hospital, or other expenses.

Accordingly, the Defendant's Motion to Limit Damages is granted in part. The Plaintiff may recover non-economic damages in the categories described above but may not recover economic damages.

SO ORDERED this 1st day of November 2021

BY THE COURT:

<u>Ashley Staab</u>

Ashley Staab District Court Judge

#### **Jury Instructions**

#### **Instruction No. 1**

1. The plaintiff has the burden of proving the plaintiff's claims by a preponderance of the evidence.

2. The defendant has the burden of proving the defendant's affirmative defense by a preponderance of the evidence.

3. To prove something by a "preponderance of the evidence" means to prove that it is more probably true than not.

4. "Burden of proof" means the obligation a party has to prove a claim or defense by a preponderance of the evidence. The party with the burden of proof can use evidence produced by any party to persuade you.

5. If a party fails to meet the burden of proof as to any claim or if the evidence weighs so evenly that you are unable to say that there is a preponderance on either side, you must reject that claim.

#### **Instruction No. 2**

For the plaintiff, Dakota Weirs, to recover from the defendant, Lush Fertilizer, Inc., on the plaintiff's claim of negligence, you must find all of the following have been proved by a preponderance of the evidence:

1. The defendant manufactured a fertilizer product containing a chemical compound known as Drupho;

2. The defendant was negligent by failing to exercise reasonable care to prevent the product from creating an unreasonable risk of harm to persons who might reasonably be expected to use the product in the manner the defendant might have reasonably expected;

3. The plaintiff was one of those persons the defendant should reasonably have expected to use the product; and

4. The plaintiff had damages that were caused by the defendant's negligence, while the product was being used in a manner the defendant should reasonably have expected.

If you find that any one or more of these four statements has not been proved, then your verdict must be for the defendant.

On the other hand, if you find that all of these four statements have been proved, then your verdict must be for the plaintiff, but you must then consider the defendant's affirmative defense of comparative fault.

#### **Instruction No. 3**

If a manufacturer of a product knows or in the exercise of reasonable care should know that (1) the use of the product may be harmful or injurious to a user, and (2) that risk of harm or injury is not obvious to a reasonable user, then the manufacturer must use reasonable care to warn the user of the risk of harm or injury if a reasonably careful person would under the same or similar circumstances. The failure to do so is negligence.

#### **Instruction No. 4**

The word "cause" as used in these instructions means an act or failure to act which in natural and probable sequence produced the claimed injury. It is a cause without which the claimed injury would not have happened.

#### **Instruction No. 5**

The plaintiff, Dakota Weirs, has the burden of proving, by a preponderance of the evidence, the nature and extent of the plaintiff's damages. If you find in favor of the plaintiff,

you must determine the total dollar amount of plaintiff's damages, if any, that were caused by the negligence of the defendant, Lush Fertilizer, Inc., and the negligence, if any, of the plaintiff.

In determining such damages, you shall consider the following: Any noneconomic losses or injuries which plaintiff has had to the present time or which plaintiff will probably have in the future, including physical and mental pain and suffering, emotional trauma and distress, inconvenience, emotional stress, and impairment of the quality of life.

#### **Instruction No. 6**

The fact that an instruction on measure of damages has been given to you does not mean that the Court is instructing the jury to award or not to award damages. The question of whether or not damages are to be awarded is a question for the jury's consideration.

#### **Instruction No. 7**

Difficulty or uncertainty in determining the precise amount of any damages does not prevent you from deciding an amount. You should use your best judgment based on the evidence.

#### **Instruction No. 8**

A form of comparative fault is the negligence, if any, of the plaintiff. Such comparative fault is an affirmative defense that is proved if you find both of the following by a preponderance of the evidence:

- The plaintiff, Dakota Weirs, failed to do something that reasonably careful people would do, under the same or similar circumstances to protect themselves from the claimed danger created by the product; and
- That conduct by the plaintiff was a cause of the plaintiff's claimed injuries, damages, and losses.

#### **Instruction No. 9**

If you find that the plaintiff, Dakota Weirs, had damages and that such damages were caused by the negligence of the defendant, Lush Fertilizer, Inc., you must then determine whether the plaintiff was also negligent, and whether any such negligence of the plaintiff contributed to the plaintiff's own damages.

The negligence of the plaintiff is an affirmative defense that must be proved by a preponderance of the evidence.

If you find that the plaintiff was negligent, then you must also determine to what extent the negligence of the defendant and the negligence of the plaintiff contributed to the plaintiff's damages, expressed as a percentage of 100 percent.

If the plaintiff is allowed to recover, the total amount of the damages awarded will be reduced by the percentage of the negligence, if any, of the plaintiff.

#### **Instruction No. 10**

Any finding of fact you make must be based on probabilities, not possibilities. You should not guess or speculate about a fact.

#### **Instruction No. 11**

You must find that a person knew a fact, if that person had information that would have led a reasonable person to inquire further and that inquiry would have revealed that fact.

#### **Instruction No. 12**

Evidence may be either direct or circumstantial. Circumstantial evidence is the proof of facts or circumstances from which the existence or nonexistence of other facts may reasonably be inferred. All other evidence is direct evidence. The law makes no distinction between the effect of direct evidence and circumstantial evidence.

#### **Instruction No. 13**

You must not be influenced by sympathy, bias, or prejudice for or against any party in this case.

#### **Instruction No. 14**

You are the sole judges of the credibility of the witnesses and the weight to be given their testimony. You should take into consideration their means of knowledge, strength of memory and opportunities for observation; the reasonableness or unreasonableness of their testimony; the consistency or lack of consistency in their testimony; their motives; whether their testimony has been contradicted or supported by other evidence; their bias, prejudice or interest, if any; their manner or demeanor upon the witness stand; and all other facts and circumstances shown by the evidence which affect the credibility of the witnesses.

Based on these considerations, you may believe all, part or none of the testimony of a witness.

#### **Instruction No. 15**

A witness qualified as an expert by education, training, or experience may state opinions. You should judge expert testimony just as you would judge any other testimony. You may accept it or reject it, in whole or in part. You should give the testimony the importance you think it deserves, considering the witness's qualifications, the reasons for the opinions, and all of the other evidence in the case.

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#### DAKOTA WEIRS – WITNESS STATEMENT

My name is Dakota Weirs, I am twenty years old, and I am suing Lush Fertilizer because
their products made me sick.

I was recently diagnosed with Non-Hodgkin lymphoma and I believe the sole cause is my use of Lush Fertilizer, which contains ingredients that have been deemed to be unsafe. The use of Lush Fertilizer should have been prohibited here as it was in France and other places. Lush Fertilizer ruined my life and has stolen my future. I want the company to pay for what it did and to compensate me and other people who have been affected by this dangerous product.

9 Prior to my illness, I had always been an active member of my community. With what
10 little free time I had, I volunteered at the local homeless shelter. At the shelter, I would serve
11 meals, wash dishes, and just be involved with the less fortunate members of my community.
12 Now I can barely help around the house.

I was also very active in school. I was a member of the National Honor Society and was President of my school's student government. I was always involved in something. I loved going to school, being with my friends, and I worked very hard to get good grades and to set myself apart from my classmates. I tried to set myself apart by being very involved in the community and excelling at various extracurricular activities. All of that has been taken from me. The worst part is that I also loved to play the piano, a joy that has also been taken from me.

Ever since I was a little child, barely able to walk, I used to waddle over to the beautiful baby grand piano my grandfather gave my parents when they were married. I don't know why I was so enamored by that thing but every chance I got I would find my way to the piano and press on the foot pedals. It was the only part I could reach. I used to set my toys up underneath the piano and play there all day. I would build forts underneath it and pretend to be in another world.

24 When I was tall enough to reach the keys, I would bang on them incessantly and soon enough 25 began to play little ditties that I wrote myself. I had no formal training at this time, but my 26 parents saw I had potential and thought some of the tunes I made up were actually quite good. 27 My grandfather died when I was seven years old and my love for that piano grew because 28 the time I spent at the piano reminded me of him and made me feel as if he were still there 29 playing with me. My grandfather was also an accomplished piano player and I think I started to 30 play so I could be closer to him. I remember sitting on his knee as he showed me the different 31 sounds the keys made and how the pedals affected the tone. I remember thinking he was so tall 32 and strong because he could play the keys and work the pedals at the same time. 33 Soon after my grandfather passed, my parents decided I should start taking lessons. They 34 saw that I was drawn to the piano and knew how close my grandfather and I were. When my 35 music lessons started, I was in a whole new world. I learned everything about the piano. I studied 36 musical theory in my spare time, and I even drew a mini-keyboard in my notebook so I could 37 practice my scales when I was on the bus or taking long car trips. After a while, I actually 38 became quite good at playing. I performed in many recitals and even won some competitions. 39 Piano was my life. People would come from all over the state to hear me play, and I was offered 40 a number of scholarships. Because of my ability, I was even awarded a full-ride scholarship to 41 Julliard, perhaps the finest musical conservatory in the world – and in New York City! It was 42 everything I ever dreamed of. 43 My inability to play the piano has been the most devastating part about my illness. 44 Besides the swollen lymph nodes, which can be quite painful, and the frequent chills and chest

46 fatigue and severe shortness of breath. In addition, sitting on the hard piano bench often causes

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pains, I no longer have the strength to sit for long periods of time at the piano due to my constant

47 me to bruise, and it makes playing even the shortest concerto impossible. Besides all of that, 48 what hurts the most is that I feel like I lost my grandfather a second time. I no longer get to sit at 49 the piano and pretend he's there with me, playing right beside me. I also had to turn down the 50 Julliard scholarship. There is no way I can complete such a rigorous program in my condition. 51 My life has been ruined. Although the school has allowed me to defer my scholarship for up to 52 two years, I fear I will never be well enough to pursue a career in concert piano—even though 53 my doctor has not given up hope.

54 I believe Lush Fertilizer is responsible for my illness. I had worked since I was fourteen 55 years old as a landscaping technician for Haven Landscaping, a small locally owned business. I 56 loved being outdoors and enjoyed working with my hands, so it seemed like a natural fit. We had 57 all sorts of interesting clients including office buildings, shopping malls, resorts, soccer fields, 58 houses of worship, neighborhoods, and golf courses. I was primarily responsible for spreading 59 seed and fertilizer because I was not quite old enough to work the machinery such as the big 60 riding lawn mower, the weed whackers, or the aerator. I was fine with the work though. It was 61 easy enough and I needed the money so I could put myself through school. I just loved being 62 outdoors and feeling the wind on my bare face and the wind hitting my eyelashes. My boss 63 always told me to cover my face when I was working with chemicals but sometimes it was just 64 too hot, and the wind felt so good. We were also technically supposed to always wear long 65 sleeves, pants, and gloves when we used fertilizer, but it was summer, and it was way too hot to 66 do that. Pretty much everyone, including me, wore shorts and t-shirts. Now, if I had known that 67 Lush caused Non-Hodgkin lymphoma, I may have done things differently.

Just before I was set to leave for Julliard, and after several years working in the
landscaping industry, I started to feel sick all the time. I had rapid weight loss, even though my

abdomen sometimes would swell to double its normal size. I often felt fatigued, had chest pains, chills, and enlarged lymph nodes. No one knew what was wrong with me. Finally, after scores of hospital and doctor's visits and a huge amount of medical bills, I was diagnosed with Non-Hodgkin lymphoma. My life was all but over. We just couldn't understand how I could have gotten sick when I was so active in the community and at school and was able to work so hard at my job just a year earlier. I have no idea what the future will hold, if I will recover, or continue to decline. My doctor is also uncertain what care I might need in the future. I am so scared.

77 One day, after a pretty serious bout of depression, I was at home on the couch—like I 78 always am now—and was watching the news when I saw a story about Lush Fertilizer and its 79 main ingredient Drupho. Someone had leaked some documents and those documents showed 80 that the company lied about the safety of its products and knew that Drupho could cause Non-81 Hodgkin lymphoma. I was shocked because I knew I used Lush Fertilizer, among several other 82 fertilizers and lawn chemicals, when I worked as a landscaper. As soon as I saw the story, I 83 immediately called my dad. I also reached out to my old job to warn them about the product and 84 to see if they had any of the old packaging left to be sure Lush Fertilizer was the product I had 85 been using. My old boss at Havens was able to confirm I had used Lush Fertilizer and thought it 86 was strange it caused my illness because there was no warning on the packaging about the 87 dangers of continued use of the product. He found an old package of the Lush product we used 88 and I had him send me a picture. Exhibit 1 fairly and accurately shows a Lush Fertilizer label just 89 as I remember it. It has the ingredients, but no warnings. Other fertilizers and chemicals Havens 90 used often had some sort of warning on the packaging. The warnings help customers take certain 91 precautions while using the product. Some instructed that mask or eye covering were necessary, 92 others instructed that the product should only be used outdoors. I often used the product indoors

in the lobby of the large office buildings and shopping malls I worked in. Havens also stated that
it was lucky for everyone that they stopped using the product after my third or fourth year on the
job.

96 After hearing this news, my dad started doing all sorts of research into the company and 97 even started comparing the product sold here to the product sold elsewhere in the world. My dad 98 speaks fluent French, so he was able to read the ingredient list for the French product and he 99 discovered the French product is different than the U.S. version. He told me about that, and I did 100 a search on Google. I found a picture of a label from the same Lush fertilizer I used, except it 101 was all in French. I wrote down the ingredients exactly as they were written, and I ran it through 102 Google-translate. Exhibit 2 is the list of ingredients I copied from the French label with an 103 English translation. Guess what? It turned out Lush Fertilizer in France contains exactly the same 104 ingredients as the fertilizer in the U.S. except no Drupho! A little more digging on Google 105 confirmed that the French version without Drupho is sold all over the world, including Haiti, 106 Liberia, Canada, Congo, and Côte d'Ivoire. Apparently, Drupho had been outlawed in these 107 countries for years. I just don't understand how the company could continue using this product in 108 the U.S.

Another reason I suspect Drupho caused my illness is because I have a twin, Skyler. We are obviously fraternal twins, not identical twins, but we basically participated in identical activities other than my landscaping job. The only reason we did not work together at Havens is that Skyler is allergic to grass. Non-Hodgkin lymphoma is environmental, not genetic, and the only difference in our environments was my environment included exposure to Drupho where I worked. If something else in my life caused my Non-Hodgkin lymphoma, then Skyler should have it, too.

Even though our parents made us do all the same activities together as children, Skyler and I were never particularly close. Now Skyler works as a freelance writer and part-time server at a restaurant. Skyler is a talented writer and has written extensively about the safety of Drupho. Skyler had a series of articles published in a well-regarded scientific magazine. However, Skyler has also written all sorts of articles about UFOs, Flat-Earth Theory, chem trails, and anti-vax culture. Skyler will write anything for the right price.

122 I can't believe my own twin would take the stand against me. Things between us really 123 took a turn for the worse when the medical bills started to pile up. Skyler has extensive gambling 124 debts and when our father started to spend money on my medical bills, Skyler became resentful. 125 Skyler thought it was unfair our dad spent so much money on my medications but would not 126 help with Skyler's debts. Skyler often told me I was ruining the family legacy and there would be 127 no money left in the estate after our dad passes. I can understand why Skyler is upset, but that is 128 no reason to use Skyler's formidable research and writing skills against me. Skyler is extremely 129 smart, and I fear the court will believe Skyler instead of me. If only the court knew about our 130 personal problems, Skyler's immense debts, and our longstanding rivalry, I don't think the court 131 would believe a word Skyler says.

I have carefully reviewed this statement. It is true and accurate, and it includes everything
I know of that could be relevant to the events I discussed. I understand that I can and must update
this statement if anything new occurs to me before the trial.

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By: Dakota Weirs

**Dakota Weirs** 

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#### **CARSON DURST – WITNESS STATEMENT**

My name is Carson Durst. I am currently the Lead Product Developer for Terra's
Greenery. I have worked at Terra's Greenery since 2006. In my current role, as the head of the
Research and Development Team, I oversee Terra's Greenery's development of its line of
fertilizers and lawn-enhancement products.

6 I started my illustrious career working as an intern on the Research and Development 7 Team for Lush Fertilizer in 2003. Lush Fertilizer was the company founded by now-CEO Blake 8 Doncourtt back in 2000. Twenty years ago, Blake and the whole Doncourtt family were like the 9 family I never had. I was best friends with Charles Doncourtt. Charles is Blake and Morgan Doncourtt's oldest child. Charles and I played soccer together on the local travelling team, and 10 11 we became inseparable, best friends. So, that meant Sunday dinners at the Doncourtt's, trips to 12 the lake house in the summer, and of course, the Doncourtt's were my ride to every single soccer 13 game. All that seems like a lifetime ago.

14 Eventually, Charles and I both went to Arizona State University. I graduated with a 15 bachelor's in Chemical Engineering, and Lush Fertilizer hired me right out of college. I hadn't 16 necessarily planned on working for Lush. Shortly before graduation, I had still not found a job. I 17 was not top of my class, but I did well enough. While Charles and I were home for spring break 18 during my senior year of college, I was commiserating with Charles about how I was not having 19 any luck finding post-graduation employment, and he told me that Lush Fertilizer was hiring 20 interns for the summer. He was sure that Blake would pull some strings for me. Positions like 21 that are hard to come by for new graduates without experience, so I could not pass up an 22 opportunity like that. I put my application in and, sure enough, I was hired as an intern with the

Research and Development Team shortly after submitting my application. I officially started my
employment with Lush Fertilizer in June 2003.

I rose through the ranks quickly with Lush Fertilizer. After only three months, I was promoted to a full-time position as a Product Development Engineer. There were whispers around the watercooler that my promotion was just because of my relationship with the Doncourtts and that I was unqualified for that position. But I assure you that the reason I passed up the more-experienced engineers was because I was performing at a higher level.

30 The biggest assignment I got with the company was working to develop Drupho, a 31 patented bonding agent that Lush developed to keep its fertilizer products preserved and intact. 32 The chemical formula of Drupho was developed over the course of a couple of years starting in 33 2001. When I joined the company in 2003, Lush Fertilizer was in the process of testing the safety 34 of the bonding agent. The first study was done in-house by the Research and Development 35 Team. The product development engineers and scientists on the team kept notebooks chronicling 36 our analysis. I was tasked with researching one of the chemical compounds that comprised 37 Drupho. As part of that research, I found one study from England which concluded that the 38 particular chemical compound may be carcinogenic in rats, but I could not find any studies 39 which explored whether the chemical compound had any adverse effects in humans. Exhibit 3 is 40 an excerpt from the study from England. I documented that study in my lab notebook on June 10, 41 2003.

Gerri Langley, the product manager, presumably reviewed my notebook. These reviews
typically happened on a regular basis. Usually, once everyone's analyses have been reviewed,
Gerri compiled our findings into a single report that went to senior management. These reports

outlined the problem and summarized the analyses. What went up the flagpole was above mypaygrade as an intern, so I can only speculate.

47 However, that following September, right on the heels of my promotion to product 48 development engineer, we got word from on high that Lush Fertilizer was doing another in-49 house study, this time relating specifically to whether Drupho was potentially carcinogenic in 50 humans. We received direction via email regarding the parameters of the study and got to work. 51 Exhibit 4 is from a printout I kept of one of those emails. The email is not completely clear, but 52 the agenda was made clear during weekly staff meetings, and there was certainly pressure from 53 management for the internal studies to be read a certain way. There was a conclusion 54 management wanted and we were encouraged to document the data in a form that supported that 55 hypothesis. I mean, in this business, it is commonly understood that studies should be worded to 56 avoid certainties and to give the company wiggle room in case of a lawsuit such as this, so I 57 wouldn't say this pressure was necessarily unique to this situation.

58 When we had concluded our analysis in December of 2003, Gerri gathered us all in a 59 conference room to discuss our findings. Everyone presented their component of the analysis as 60 Gerri and an upper-echelon manager, Alex Monroe, listened intently. One scientist expressed 61 concern that not only may Drupho contain a carcinogen, but that her analysis found that it was 62 perhaps linked to Non-Hodgkin lymphoma. At the conclusion of the meeting, Alex Monroe just 63 said, "Let's keep it in the walls until we figure out what we are doing." A month or so later, a 64 copy of the study report hit my desk. It concluded: "On average, our statistics and our 65 distribution is below what is required by law. The mean data is within three standard deviations 66 from the applicable federal standards. Further analysis is required before we are able to make any 67 conclusions regarding the likelihood of the chemical compound at issue causing any long-term

health effects, including cancer." Non-Hodgkin lymphoma was not specifically addressed
anywhere in the report. However, the report went on to recommend baking Drupho as part of the
production process to eliminate the possibility Drupho could be considered carcinogenic. The
suggestion to bake the Drupho was framed in such a way as to seem like the company would be
going above and beyond what was necessary to comport with safety standards. This was just one
of the many ways Lush Fertilizer tried to protect its shiny, do-gooder image.

74 From my participation in the research, this study was incredibly misleading. While I did 75 not have access to all the data analyzed by the various members of the Research and 76 Development Team, it was obvious to me that some data was left out of the final report. I'm sure 77 if you questioned the writers as to the justification, they'd say that the data were "outliers" or 78 "spurs." But, if you ask me, the labeling was a deliberate attempt to fit the data obtained into the 79 narrative desired by upper management. As far as Lush Fertilizer was concerned, Drupho was 80 the goose that laid the golden egg. The texture and longevity of the fertilizers produced by Lush 81 Fertilizer were what set it apart from its competitors. Consequently, Drupho was critical to Lush 82 Fertilizer's continued financial success. I have no doubt that Lush Fertilizer knew about the risk 83 that Drupho, in its non-baked form, could cause Non-Hodgkin lymphoma and did its best to 84 water down the studies and bury the causal link.

While this was always an issue since I started, it seemed as though, all-of-the-sudden, there was a lot more pushback from some of the senior members of the team for my role in the choice assignments. My annual performance reviews suddenly started to reflect those sentiments. The quality of my work was criticized. I was accused of just skating along and not pulling my weight. Some went so far as to say I thought I was untouchable because of my relationship with Charlie and the Doncourtt family.

91 Ultimately, the executive team at Lush Fertilizer confronted me about the mounting 92 complaints about my job performance from my co-workers and staff, and they me made sign a 93 Performance Improvement Plan, which meant I was in a probationary status with the company. I 94 became marginalized at work and relegated to the assignments no one wanted. I tried to bring 95 this up with Blake Doncourtt. Blake refused to intervene, telling me that I was lucky to even 96 have a job. Blake said: "Do you know how many qualified applicants I overlooked to hire you? 97 People who graduated at the top of their class from Ivy League universities?" That was not the 98 reaction I was expecting from my long-term mentor and close family friend. I chalked it up to the 99 stress Blake was under-the Doncourtts had recently separated and, according to Charlie, the divorce proceedings had become extremely contentious. Quietly, I resolved to bring it up to 100 101 Blake again later, once the divorce was finalized and Blake's personal life—and temper—had 102 stabilized a bit.

103 A few months later, after another abysmal performance review in early 2005, it became 104 clear to me that I had no future with Lush Fertilizer. I walked up to Blake Doncourtt's office on 105 the 9th floor and made small talk with the administrative assistant, Mary Nieman, who served as 106 the gatekeeper to Blake Doncourtt's office. Mary asked me if I'd heard the latest in the divorce 107 drama. I told her that I hadn't. In hushed tones, she told me, "Blake is livid today. Blake just 108 found out that Morgan is getting the lake house. The judge is also ordering Blake to pay Morgan 109 a ridiculous amount in alimony—seems outrageous if you ask me. The budget is going to be 110 tight around here going forward." As I was thinking about how to respond to this news-I'd 111 always loved the lake house—we heard yelling from inside Blake Doncourtt's office. I heard 112 Blake's unmistakable voice through the door, "I don't care! Just do it! Do what you need to do to 113 make it happen!" Blake seemed worked up about something big, which was unusual. Blake was

always one to think things through before reacting, so whatever it was sure had set Blake off.
Also, Blake must have been talking on the phone as I couldn't hear the other side of the
conversation, nor did anyone come out of the office before I was ushered in.

117 Blake Doncourtt was sitting there, red-faced, seemingly on the verge of exploding into 118 another tirade. I should have left Blake's office immediately, but I haven't always been the best 119 at reading a room. After a beat, Blake looked at me, finally realizing my presence. "Carson, to 120 what do I owe the pleasure?" At least for that moment, Blake's temper seemed to have cooled. 121 "B-b-blake," I stammered, "I've come to see if you could talk to Gerri for me." Gerri Langley 122 was the product manager and my direct supervisor at that time. I told Blake about how Gerri had 123 told me that I haven't turned things around and that I honestly didn't think she was being fair. 124 "She has it out for me," I complained. "I've got bigger fish to fry at the moment, Carson, so 125 grow up and just do your job. You're like family to me, Carson, but Gerri has been a loyal 126 employee of mine and is instrumental in us staying afloat, so you're going to have to work out 127 whatever problem you're having with her on your own."

128 I left Blake Doncourtt's office disheartened, but by the time I got back to the lab 129 downstairs, I was seething. I felt confused and betrayed—and by someone who had just claimed 130 it was like I was a part of their family. I could see the writing on the wall though, so I 131 immediately started searching for a new job. It turned out, Terra's Greenery had some openings 132 for product development engineers, so I applied. That would really get Blake's goat, I thought. 133 Terra's Greenery was Lush Fertilizer's biggest competitor, and Blake and the CEO of Terra had 134 nothing but bad blood between them. I felt conflicted at first, given my history with the 135 Doncourtt's. But in the end, I needed to look out for myself-especially after Blake betrayed me 136 like that. Fertilizer was what I knew, so it only made sense to work in the same field.

137 When I was fired from Lush Fertilizer in December of 2006, I had already been hired by 138 Terra's Greenery. When Lush Fertilizer found out, a legal battle ensued. I couldn't believe it— 139 Blake had ignored my concerns but was now concerned about my expertise? Lush Fertilizer tried 140 to get a court order enjoining me from working at Terra's Greenery because they feared even 141 inadvertent disclosures of trade secrets given the overlap of products produced by both 142 companies. I did not remember this at the time, but I apparently signed a confidentiality 143 agreement when I first started at Lush Fertilizer. Exhibit 5 is an accurate copy of the agreement. 144 It explicitly stated that I could not disclose Lush Fertilizer's trade secrets or work for any 145 company that would benefit from the disclosure of those trade secrets. Ultimately, a settlement 146 was reached where Terra's Greenery and I begrudgingly agreed that I would not start my 147 employment with Terra's Greenery for a period of six months. 148 In my first few years at Terra's Greenery, I have mainly worked on a new product that is 149 now on the verge of out-performing Lush Fertilizer's equivalent on the market. It's looking 150 really promising. If the projections hold, Terra's Greenery might overtake Lush Fertilizer as 151 having the best-selling fertilizer on the market. I have carefully reviewed this statement. It is true and accurate, and it includes everything 152 153 that I know of that could be relevant to the events I discussed. I understand that I can and must 154 update this statement if anything new occurs to me before the trial. 155 156 By: Carson Durst 157 Carson Durst

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#### **DR. CASEY ROGERS – WITNESS STATEMENT**

2 My name is Dr. Casey Rogers. I have been retained as an expert to testify on behalf of the 3 Plaintiff in this matter. I am currently employed as a professor in the Horticulture and 4 Entomology Department at the University of California at Berkeley. I have a PhD in Agriculture 5 and Entomology from the University of California at Berkeley. I earned my Bachelor of Science 6 degree in Agriculture and Chemistry from the Colorado State University. Prior to earning my 7 PhD, I worked as a research analyst for a large multi-national chemical company. Exhibit 6 is a 8 copy of my current Curriculum Vitae, which sets forth my educational and professional work 9 background. Exhibit 7 is a list of my published work. I have published numerous scholarly articles on the negative and harmful effects of prolonged exposure to various chemicals, 10 including Drupho. 11 12 For many years I have been studying the potentially harmful effects prolonged exposure 13 to chemicals has on the body. Not only has my research been used in litigation and before 14 administrative advisory boards, I have made recommendations to companies and regulatory 15 agencies on precautions that should be taken by laborers who are exposed to chemicals. Although my research has been used in litigation, this will be the first time I have ever actually 16 17 had to testify as an expert witness. I am hoping, however, that it will not be the last. Dakota 18 Weirs is not the only person to have developed Non-Hodgkin lymphoma due to exposure to 19 Drupho. If this case goes the way it should, I assume it will open the door to class action lawsuits 20 and I will be on the forefront of that battle.

Although I am concerned about many agricultural products, Drupho caught my attention when it first came on the market. I believe that it was rushed to market without sufficient studies on its safety, so I conducted my own study to see if there were any adverse health effects in

persons who were exposed to Drupho over long periods of time. Drupho was developed in 2003 by the scientists on Lush Fertilizer's Research and Development Team. Drupho is a patented ingredient that Lush uses in all of its products as a bonding agent. Specifically, Drupho is used in fertilizer to keep the fertilizer preserved and intact. The other active ingredients in Lush's products are nitrogen, phosphorous, and potassium. Along with calcium or iron, these ingredients are found in different amounts in each product. Each Lush Fertilizer product includes Drupho. I have personally analyzed the chemical makeup of each product using a mass spectrometer.

As I noted earlier, my research has focused on the long-term health effects of prolonged exposure to potentially harmful substances, including Drupho. For many years after Drupho was released on the market, I had been hearing reports on the potentially negative effects of the substance. I wanted to study the chemical to determine any side-effects or negative effects. It was already known that Drupho is carcinogenic in rats.

36 I put together a study, which included a control group of people who had never been 37 exposed to Drupho, a group of people who used products containing Drupho on occasion, and a 38 group of people who were exposed to Drupho on a regular, almost daily basis. Those people who 39 were exposed to Drupho included farm laborers who used the fertilizer in the field and were 40 exposed to the product when picking the crop, and gardeners who used the product to maintain 41 the garden. The study monitored the groups over a period of years following the exposure. The 42 groups who had exposure to Drupho were monitored for various health conditions and compared 43 to the control group.

The study found an increase in serious health conditions and diagnoses in those
individuals who were exposed to Drupho, as compared to the control group. Specifically, the
study found higher incidences of cancer, including Non-Hodgkin lymphoma. The study found

47 that those with prolonged exposure were ten-times more likely to be diagnosed with cancer as 48 those without exposure, and five-times more likely to be diagnosed with cancer as those with 49 occasional exposure. These results suggest that there is a correlation between exposure to 50 Drupho and cancer. The majority of those diagnosed with cancer were diagnosed with endocrine 51 and exocrine-based varieties, the latter of which include Non-Hodgkin lymphoma.

52 Non-Hodgkin lymphoma is a specific type of cancer which effects the white blood cells, 53 which are called lymphocytes. The lymph system is part of the immune system. The immune 54 system helps the body fight off infection and other diseases and helps move fluid around the 55 body. Lymphoma can start in any area of the body containing lymph tissue, which can include 56 the lymph nodes, the spleen, bone marrow, thymus, adenoids and tonsils, and the digestive tract. 57 Lymphoma can then spread throughout the rest of the body. Some lymphomas are indolent, 58 meaning they grow and spread slowly, whereas others are more aggressive and spread faster. 59 Overall, the five-year survival rate for Non-Hodgkin lymphoma is 72%, but it can be affected by 60 other things, including the type and stage of the lymphoma. There are 4 stages of lymphoma, 61 with 1 being the least severe and 4 being the most severe. Like many cancers, Non-Hodgkin 62 lymphoma can be controlled but it can never be cured. Depending on the stage and progression 63 of the lymphoma, it can be treated with chemotherapy, monoclonal antibodies, radiotherapy, 64 stem cell transplant, or surgery. Since Non-Hodgkin lymphoma affects the immune system, those 65 with the lymphoma can become immune-compromised and more susceptible to disease. 66 Doctors can diagnose Non-Hodgkin lymphoma through testing, including CT scans, MRI

scans, blood tests, and a bone marrow biopsy. Symptoms of Non-Hodgkin lymphoma include
night sweats, fever, weight loss, tiredness, loss of appetite, anemia, and an itch all over the body.

Non-Hodgkin lymphoma is not genetic and is usually caused by exposure to an
environmental condition, including pesticides. The toxins in the pesticides can be absorbed
through the skin or inhaled through the respiratory system.

72 As part of the study, I examined ways to mitigate and prevent exposure to Drupho. The 73 study measured both the amount of the chemical that was absorbed by the skin and the amount 74 that ended up in the respiratory system. From the study it was clear that those exposed to Drupho 75 were primarily exposed by breathing in the aerosolized product, but they were also exposed 76 through contact with the skin. Based on my findings, I reviewed options to prevent exposure to 77 the toxic chemical. Short of discontinuing use of Drupho altogether, I made recommendations 78 for steps that should be taken to reduce exposure and the related risks. To reduce risks of 79 absorption to the skin, anyone who worked with Drupho should wear long sleeves and long pants 80 to avoid their skin coming into contact with the chemicals. Most importantly, those working with 81 aerosolized versions of the product or who might breathe in the chemical should wear a medical 82 grade protective face mask, which covers the mouth and nose, similar to an N-95. The results of 83 the study were inconclusive, as protective covers are not typically provided to the workers and 84 there was insufficient time to study the long-term efficacy of the protective equipment.

As part of this case, I have reviewed Dakota Weirs' medical records and employment records. Weirs worked for a landscaping company. As part of the employment, Weirs worked with products containing Drupho for a prolonged period of time. Weirs' level of exposure was similar in nature to those in the study who had prolonged exposure to the chemical. Weirs was subjected to Drupho without use of any protective gear. Weirs was exposed to Drupho regularly for four years. I have also reviewed Weirs' related medical records and confirmed that Weirs was diagnosed with Non-Hodgkin lymphoma. There is a high degree of medical probability that

Weirs' Non-Hodgkin lymphoma was caused by prolonged exposure to Drupho. The mechanism
by which this likely occurred was the collection of lymph containing cells damaged by exposure
to Drupho or foreign particles from Drupho, on the scale bacteria and viruses, that entered
Wier's tissue and diffused through and into the space between Wier's skin and lung tissue. As
those damaged cells and particles accumulated in lymph nodes, their concentration could have
overwhelmed the immune function of lymphocyte cells, resulting in metastasizing cancerous
masses. From there, lymphoma of any form is nearly inevitable.

All of the conclusions I have expressed in this statement that are based on my training,
education and experience were based on sufficient facts and data available to me. Those
conclusions were the product of reliable principles and methods. Lastly, I reliably applied those
principles and methods to the facts and data available to me in reaching those conclusions.
I have carefully reviewed this statement. It is true and accurate, and it includes everything
I know of that could be relevant to the events I discussed. I understand that I can and must update

105 this statement if anything new occurs to me before the trial.

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107	By: <i>Dr. Casey Rogers</i>
108	Casey Rogers
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# **BLAKE DONCOURTT – WITNESS STATEMENT**

2	My name is Blake Doncourtt. I am the Chief Executive Officer of Lush Fertilizer, Inc.
3	Since 2000, I have grown the company from an unknown producer of fertilizers to one of the
4	world's largest suppliers of yard and commercial fertilizers. Our flagship product, Lush
5	Fertilizer, is used by businesses, governments, and individuals to produce vibrant, lush, and
6	green grass. Grass that our customers proudly show off. After all, green grass is part of the
7	American dream. While I am proud of our company's success, it came only after years of
8	research and development and the expenditure of significant capital. I worked day and night to
9	make Lush the profitable company it is today.
10	Lush Fertilizer's success has allowed me to direct 10% of our annual profits to charities.
11	Those charities, in turn, are working hard to decrease the world's global nitrogen footprint. Our
12	company has been instrumental in creating state and national legislation seeking to further
13	educate on environmental issues worldwide and we have started our own charity focusing on
14	cleaning the most polluted areas of the world's oceans. I have received many awards for my
15	humanitarian work and my work with these charities and other environmental causes. In 2019,
16	Lush was one of the recipients of the prestigious SEAL business sustainability awards. I was
17	personally nominated for the United Nations "Champions of the Earth" award in 2020 and I had
18	hoped to win this award in 2021 before all this happened.
19	Now, Lush and I are being falsely accused of ignoring a known carcinogen in our

fertilizer. Others, including Dakota Weirs and Dakota's hired "expert," Casey Rogers, are asserting Drupho, a bonding agent in our fertilizer, is linked to Non-Hodgkin lymphoma. Our extensive research and testing before putting our product on the market did not identify this as a specific risk to persons coming into contact with our fertilizer. Since there was little to no risk to

24 persons using our fertilizer, there was no need under federal or state laws to put a warning on our 25 product. How can we put a warning on the product when there is no science or data to support 26 these baseless accusations? If any valid scientific studies had indicated there were risks from 27 using a Lush product, we would have put warning labels on the packaging immediately. As 28 Devin Williams will tell you, our toxicology research and development team found nothing in 29 the product, nor apparently did the EPA, to require a warning with the insignificant levels of 30 toxicity in our fertilizer. I was certainly never aware of any substantiated concern or given any 31 reason to be concerned that the use of Drupho was dangerous. I have never seen and any valid 32 scientific evidence showing a reasonable probability that Drupho is carcinogenic, and there have 33 been no conclusive studies that show Drupho is carcinogenic in human beings. Well, no valid 34 studies. Yes, the plaintiff's hired gun, Casey Rogers, claims to have done such some form of 35 study, but that was never published in any scientific journal. In fact, it seems the first time 36 anybody heard of that supposed study was in this litigation. I don't think that study followed 37 reliable protocols, and it was just away for Rogers to jump on a litigation band wagon. I bet 38 Rogers is now making a lot more money as a hired expert witness than as a researcher or is 39 hoping to make a lot more in the future.

Before we go any further, I feel terrible that Dakota Weirs has Non-Hodgkin lymphoma.
It is at terrible disease. I understand it is not genetic, so I assume Dakota was exposed to some
harmful environment. Lush was not part of that disease pathology though. Thankfully, it appears
Dakota's disease was discovered early, and my understanding is that with such an early
diagnosis and treatment the prognosis for recovery is quite good. I am hopeful Dakota's recovery
is swift. Sympathy aside, I am upset that Dakota is trying to blame Lush and myself without any
proof our product caused this. I have heard Dakota has worked with multiple fertilizers and lawn

chemicals for a period of years working as a landscaper. Without knowing what those chemicals
were, there is no way to know if any of them had chemicals that have been linked to NonHodgkin lymphoma. And who knows what other chemicals Dakota has been exposed to in other
settings?

51 I do not actually blame Dakota Weirs for this frivolous lawsuit. There are money hungry 52 lawyers and unscrupulous people who will try to use a Ph.D. to become a leading expert in 53 nationwide tort litigation. You've had to have seen commercials on television where some out-54 of-state law firm is begging people who have been exposed to some product to call their office. 55 It's disgusting. There is no valid evidence that directly links the use of Lush Fertilizer to cancer 56 and Dakota Weirs' lawyers are just trying to get rich off of shaky science from one questionable 57 expert who came up with a theory that Drupho is not safe. The truth, though, is that had there 58 been any significant, verifiable risk that Drupho could be carcinogenic, I would never have 59 allowed our company to put it on the market. I am an avowed environmentalist. How could I 60 ever be accused of intentionally or even negligently causing harm to my fellow human beings? It 61 is an absurd accusation.

62 Let me also address the claims by that regrettable disappointment, Carson Durst. 63 Carson's claim about Drupho never came up until Carson was fired and started working for 64 Terra Greenery, Inc., our biggest competitor. If those claims were true, Carson had every 65 opportunity to bring them to Lush's attention, or mine personally, while Carson was working for 66 Lush's research and development team. In fact, that was Carson's job—to look for any dangers 67 or risks so that we could follow up on them! Carson accuses both Lush and me of financial 68 motivation to put a dangerous product in the public's hands, but if that was true there would be a 69 paper trail. We turned over access to our email system to the plaintiff's lawyers, and they

70 searched it. If you see a single email message suggesting that Lush was advised of possible risks 71 from Drupho, let me know. The email Carson came up with is completely manufactured. The 72 search of our computers did not turn up such an email. Carson claims that research and 73 development reports were carefully crafted so as to not damage Lush's image and to make sure 74 there was no paper trail of the "real" findings about Drupho. Those are the same reports that 75 were provided to me that said there was no significant cancer danger. Dakota should be seeking 76 damages from Carson not Lush and myself. Lush's other researchers have reached opposite 77 conclusions to those Carson is now trying to assert.

78 And let's talk about financial gain. Carson started as an intern for Lush and took 79 advantage of our training and development of technical research skills, and then Carson took all 80 of that experience to Terra's Greenery while, as I understand it, earning more than any researcher 81 should earn and certainly more than Lush could afford to pay. If you ask me, Terra's Greenery is 82 paying Carson a lot of money to say these things to get a competitive edge with an inferior 83 product. We had what we believe to be an iron-clad non-disclosure agreement with Carson Durst 84 and I am sure Carson is violating it. Exhibit 5 is the operative provision of that agreement. 85 Carson agreed not to disclose or tell anyone about the nature of our research and development in 86 fertilizer and related products. But now I hear Terra's is about to release a product similar to our 87 fertilizer but which they claim is safer and carcinogenic free. Carson claims to not be breaching 88 our non-disclosure and non-compete agreement but rather to be acting as a whistleblower 89 interested in the public good, but Carson is nothing more than a profiteer using training and 90 experience gained while working for Lush at Terra's. I hope Carson Durst's falsified claims are 91 proven at this trial. I also heard that Carson has done this before.

92 Yes, I heard that Dakota and Dakota's attorneys are accusing me of not properly treating 93 our fertilizer by baking it. They also claim Lush did not bake the fertilizer just to save money, 94 and they seem to be suggesting that I needed more money to pay spousal support to my ex-95 spouse, Morgan. I guess they could throw in that I need to pay our employees enough money to 96 stay with our company and not go to work for a competitor like Carson did! Anyway, I still 97 cannot believe that stupid judge ordered me to pay my ex so much money per month. Morgan 98 never needed that amount of money. I see now that Morgan was a gold digger—just spending 99 and spending while I was working and working. These courts just don't reward anyone for hard 100 work but rather award ex-spouses money for making absolutely no contribution to a joint 101 financial picture. My point, though, is that this theory that I put profits over safety because I 102 needed more money is preposterous. I make plenty of money to take care of myself and my new 103 partner, with enough left over for Lush to make significant contributions to environmental 104 charities.

105 I do admit that Lush does not bake any of our products. Baking our fertilizer is costly. I 106 even created an amortization table in 2004. Exhibit 8 is a copy of that table. It showed we could 107 increase our profits by 6% in the first year and an additional 2% per year thereafter if Lush does 108 not bake the fertilizer. Lush needed these earnings to pay the vulture capitalists who provided our 109 company with seed funds. They demanded a good return on their investment. While baking the 110 fertilizer would remove any risk that our fertilizer was carcinogenic, the baking process was just 111 too expensive for the little risk it alleviated; it's simply overkill. No, we didn't publish our 112 financial findings. What company does? This type of proprietary information is never shared in 113 public as it would give our company competitors an advantage.

114	Neither I nor Lush would ever do anything to cause an environmental or health harm. We
115	consider ourselves stewards of good environmental and safety practices. Our awards and
116	contribution to decreasing pollution speak for themselves and our good intentions. I hope Dakota
117	recovers soon, and I sleep fine at night knowing no Lush protduct contributed to Dakota's
118	condition.
119	I have carefully reviewed this statement. It is true and accurate, and it includes everything
120	I know of that could be relevant to the events I discussed. I understand that I can and must update
121	this statement if anything new occurs to me before the trial.
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123	By: <u>Blake Doncourt</u>
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#### SKYLER WEIRS – WITNESS STATEMENT

2	My name is Skyler Weirs, and I am Dakota Weirs' twin. Like Dakota, I am currently
3	twenty years old. I am also an investigative journalist. I have written several prominent articles
4	on the conflict between individual health and corporate policy. Coincidentally, before Dakota
5	was diagnosed with cancer, I authored an article that was published in Rationalist magazine
6	questioning the narrative that there is a causal link between Drupho and cancer. I love Dakota,
7	and I truly wish I could support Dakota in this lawsuit, but I know from my own research that
8	Lush Fertilizer is just as safe, if not more, than its competitors' products.
9	As for my research, my editor picked me to write a series of articles on modern agritech.
10	I wrote about Drupho as part of that series. I spent almost a year reading and researching. I
11	started by reading publications issued by various agritech companies, then I tracked down and
12	reviewed the research studies referenced in those publications. I also tracked down a wealth of
13	information maintained by the United States Department of Agriculture and the National
14	Association of State Departments of Agriculture. I know I don't have a college degree, but my
15	knowledge base involves general knowledge plus historical and statistical information, and you
16	don't need a degree for that. In fact, outside of the USDA and NASDA, I doubt anyone has the
17	overall perspective on modern agritech that I do.
18	The magazine I write for, Rationalist, is a quarterly science education and science
19	advocacy magazine published by the Rationalist Society, a nonprofit organization devoted to

19 advocacy magazine published by the Rationalist Society, a nonprofit organization devoted to 20 promoting scientific skepticism and resisting the spread of pseudoscience, superstition, and 21 irrational beliefs. Basically, we encourage readers to ask questions and intelligently scrutinize the 22 jargon and rhetoric. Besides vaccines and climate change, there are probably no scientific topics 23 that have been more politicized and sensationalized than commercial agriculture and GMOs. Our

magazine frequently publishes articles on these topics. Lush Fertilizer, in particular, has been the target of much of the pseudo-scientific mass hysteria and conspiracy theories surrounding agritech recently. This is mostly driven by the so-called "old guard" of the agritech sector, which is spending billions of dollars to destroy the reputation of Lush Fertilizer because Lush's patented breakthrough, Drupho, threatens to upend their entire business.

29 As crazy as it might sound, these bought-and-paid-for pseudo-scientific hit jobs are 30 nothing new in the world of agritech. When Monsanto was on the brink of effectively 31 monopolizing the markets for commercial maize (corn) seed genomics and herbicides— 32 industries that account for approximately \$15 billion in revenue and \$8 million in gross profits 33 each year—its competitors waged one of the most expensive P.R. campaigns in history to 34 destroy what, by any rational account, is a miraculous scientific advancement that has reduced 35 world hunger by unprecedented levels, and which has the potential to virtually eradicate 36 malnutrition across the globe. A recent review of almost 150 studies has concluded that GMO 37 technology has significantly increased crop yields over the past 20 years. GM soybeans, corn, 38 and cotton were associated with a 22% overall increase in yield and a 37% decrease in pesticide 39 use. That's actually a good thing.

40 Unfortunately, this misinformation campaign has been largely successful, and farmers in 41 regions like sub-Saharan Africa and India, which have historically struggled with crop yields and 42 suffer from high rates of malnutrition, are hesitant to adopt GM crops. Even worse, these 43 campaigns have spawned several anti-GMO NGOs that perpetuate this small-farmer opposition 44 to biotech and agritech innovation. Most people would probably be shocked to learn that roughly 45 800 million people suffer from malnutrition and that more people die annually from chronic 46 hunger than HIV/AIDS, malaria, and tuberculosis combined. Meanwhile, non-partisan studies

show the use of GM crops could allow farmers to reclaim more than 153 million acres of
irrigated land that can no longer be farmed using traditional methods because of high salt content
in the soil—an area the size of France.

50 Don't get me wrong; I would never claim there are no risks from modern agricultural 51 products. For instance, pesticides and herbicides are, by definition, poison. Their intended 52 function is to kill undesirable organisms, such as fungi, bacteria, insects, or plants, which 53 threaten the health of the plant or crop that the person using these products is trying to grow. 54 Virtually every commercial pesticide has several well-known carcinogens, such as nitrates, 55 glyphosate, and arsenic. But modern pesticides are still a whole lot safer than they used to be. 56 The same is true of grass seed products. All modern grass seed products are treated with 57 herbicides, like 2,4-D, that preserve grass, but kill common weeds. However, common weeds, 58 such as clover, pull nitrogen out of the air and deposit it in the soil. Without the nitrogen that 59 would have been provided by other plants under natural conditions, the soil cannot support the 60 grass typically used for lawns. The grass seed companies now replace the depleted nitrogen with 61 synthetic nitrogen. As a soluble substance, nitrogen soaks deeply into the soil after a rainstorm or 62 after irrigation, reaching ground water and nearby wells.

Nitrogen is known to contribute to various types of cancer and methemoglobinemia,
commonly known as blue baby syndrome, adverse reproductive outcomes, especially neural tube
defects, diabetes, and thyroid conditions. Synthetic nitrogen from fertilizers is also horrible for
the environment. The ecological effects of nitrogen runoff are well-known and include 'dead
zones' in lakes and oceans, such as the one in the Gulf of Mexico that is the size of New Jersey.
There is probably never going to be a chemical fertilizer that is truly safe, but GM crops
undeniably show that technology can improve the efficiency of these products. Technology has

allowed us to find ways of reducing the amount of chemicals necessary to achieve optimum
yield. This is exactly why Drupho may be an even bigger revolution in agritech than GM crops
alone. Drupho is an incredibly effective bonding agent, which means that significantly smaller
amount of fertilizer and pesticide needs to be applied to achieve the desired effect.

The way this works is that Drupho bonds to both the grass and Lush Fertilizer's active ingredients—nitrogen, phosphorus, and potassium—and prevents these active ingredients from being washed away as quickly, which means that these chemicals do not need to be applied nearly as often to achieve optimum yield. Drupho only needs to be applied once or twice a year. Other grass fertilizer needs to be applied 5–6 times per year to achieve the same nitrogen penetration. Because Drupho reduces the solubility of Lush Fertilizer, the nitrogen in this product is also less likely to contaminate ground water and waterways.

81 Drupho is also an effective pesticide, which means there is no need for Lush Fertilizer to 82 add pesticides found in other grass seed products, like glyphosate and arsenic. While the research 83 on whether Drupho causes cancers, like Non-Hodgkin lymphoma, is inconclusive at best, there is 84 a much clearer causal link between these other pesticides and cancer. The International Agency 85 for Research on Cancer categorizes arsenic as a carcinogen for humans, and it categorizes 86 glyphosate as a possible carcinogen. In contrast, I'm not aware of any study that has established 87 a causal link between Drupho and cancer with any level of certainly. In any event, Lush 88 Fertilizer's development of Drupho actually protected consumers by eliminating exposure to 89 these recognized carcinogens.

Some people have suggested that I am testifying on behalf of Lush Fertilizer because I
want to undermine Dakota or that I'm motivated by money, but that is absolutely ridiculous. It's
true that Dakota and I don't have the stereotypically close twin relationship, but we're still

family. In the last couple of years, my writing career has started to take off. To the dismay of my
family, I chose to forgo college, for now, so I could focus on my career after my first article
made such a splash. My writing now generates income; but I'm freelance, so my articles have
hardly been lucrative. Sadly, I have to work as a part-time server at Applebee's just to make ends
meet. If anything, I have lost out on many potential job opportunities for having the gall to
challenge the major players in agriculture and all the supposedly prominent researchers that they
are bankrolling with grant money.

100 I'm admittedly a bit of gambler – sports betting mostly. I have always liked gambling on 101 sports since I largely can't play them myself because outdoor sports fields trigger my grass 102 allergies. For several years, I kept things in the black, but a particularly unexpected March 103 Madness a few years back really put me in a hole I haven't been able to climb back out of yet. 104 My parents were helping me a little on the side before my mom died, but that was my mom's 105 doing as it turned out. My dad was none too pleased with my decision not to go to college, so he 106 cut me off. As far as I know, he hasn't yet written me out of the will—Dakota and I are still the 107 only beneficiaries. However, Dakota's medical treatment won't be cheap, and Dad has already 108 said he'd shoulder the cost in the event that Dakota's lawsuit isn't successful.

I am here to stand by my research and because I know it is the right thing to do. Drupho could be a game-changer in agriculture as a safe alternative to currently used agricultural fertilizers and pesticides. The use of Drupho in nitrogen fertilizer for crops could reduce the amount of nitrogen fertilizer necessary for commercial farming operations significantly.

113 This is a mission I truly believe in. It is clear to me that Lush Fertilizer is committed to 114 reducing the impact of nitrogen fertilizer on the environment too. One of the major reasons I first 115 became interested in researching Lush Fertilizer is because of Lush Fertilizer's commitment to

donate 10% of its annual profits towards reducing nitrogen contamination in groundwater
agricultural communities. Lush Fertilizer's CEO, Blake Doncourtt, also started a charity to clean
the dead zones in the Gulf of Mexico and other oceans, which is directly caused by overuse of
fertilizers that don't contain an effective bonding agent.

120 It is truly terrible what has happened to Dakota, but my family's ire towards Lush 121 Fertilizer is completely misguided. It wouldn't surprise me if Dakota developed Non-Hodgkin 122 lymphoma based on past exposure to a whole host of products that contain carcinogens from 123 Dakota's work in landscaping, but Dakota is blaming the one product that was designed to 124 reduce the need for continued and repeated exposure to harmful chemicals. If Haven 125 Landscaping didn't use Lush Fertilizer, Dakota might have been exposed to synthetic nitrogen 126 far more often.

127 I know it is easy for me to point fingers, but if you ask me, this is an issue of poor 128 training by the owner of Haven Landscaping. No company should allow its teenage employees to 129 work with known harmful chemicals on a regular basis without wearing proper protective gear— 130 at least a mask and gloves. I want justice for Dakota as much as the rest of my family, but 131 Dakota is going after wrong the company. I just hope people will look past this and see the 132 potential humanitarian and environmental benefits of Lush Fertilizer and other Drupho products. 133 I have carefully reviewed this statement. It is true and accurate, and it includes everything 134 I know of that could be relevant to the events I discussed. I understand that I can and must update 135 this statement if anything new occurs to me before the trial.

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By: <u>Skyler Weirs</u>

Skyler Weirs

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#### DR. DEVIN WILLIAMS – WITNESS STATEMENT

2 My name is Devin Williams. I lead the toxicology Research and Development labs at 3 Lush Fertilizer and am the outgoing chair of the company's ethics committee. I started my career 4 with Lush roughly a decade ago and have led the toxicology labs for seven years. I am a research 5 toxicologist by training and work to understand how biological systems respond to 6 environmental interventions, whether that is alcohol in neurochemical pathways, or inorganic 7 compounds in agriculture-enhancing organophosphorus products. I see myself as having an 8 inherent responsibility in this work to also consider the "why" and "if", beyond immediate 9 project objectives. My education from undergrad through Ph.D. was completed at Colorado State 10 University in Fort Collins. I also did a specialized post-Ph.D. program in pharma-toxicology at 11 the University of Utah. My work has taken me to various states, but I am primarily working in 12 my home state of Colorado now. I hold various accreditations, that are listed on my CV, 13 including certifications in Colorado, New Mexico, Wyoming, and Utah. Exhibit 9 is a copy of 14 my CV.

Through my training and experience, I understand how to research and evaluate test results to determine the fate and effects of potentially toxic chemical agents by using biomolecular and biochemical markers. This means that I know how to tell if a substance is going to harm the average human, and how to neutralize that harm if it happens. While my work is principally data driven, I am often asked to postulate as to broader outcomes than can be derived from my datasets. That is the nature of science, and especially in an industry that supports agricultural food systems. There is a lot riding on our customers' success.

When I joined Lush, about 50 percent of the original Drupho development team had
already moved on to other ventures outside of the company. Initially, my role was to fill in as

technician as the turnover was beginning to impact testing timeliness. Later, I was promoted to
lead the labs, largely to oversee work on environmental impacts. Fertilizers enhance the growth
of plants in two ways, either by adding nutrients, or by enhancing the effectiveness of the soil by
modifying its water retention and aeration, both of which affect environmental balances. Drupho
straddles both modes and significantly 20<sup>th</sup> century fertilizer standards. Lush's CEO, Blake
Doncourtt, needed me to keep Drupho products industry-leading, environmentally aware, and
cost-effective. This provides a benefit for us as well as our customers.

Mid-20th century fertilizers focused on nitrogen-fixing chemical processes. As the
industry moved away from single nutrient "straight" fertilizers, multi-nutrient and macronutrient
fertilizers emerged, using phosphorus, potassium, magnesium, and zinc. The "Green Revolution"
took hold, increasing agricultural production in some areas by 800% between 1960 and 2000.

As the world crossed into the current century though, a problem known as eutrophication arose. In layman's terms, eutrophication is a build up of excessive nutrients in bodies of water caused by agricultural runoff. It all traces to excess nitrates. Basically, unused nitrogen from fertilizers gets converted to nitrates by bacteria in the soil, then those nitrates are carried into streams and lakes by rain and irrigation runoff. The nitrates then accumulate in the water leading to dense algae blooms that reduce oxygen in the water which kills fish. More importantly, the algal blooms also can harbor bacteria that are harmful to humans.

The desire to develop a new generation of fertilizer that did not contribute to nitrate pollution was the genesis of Drupho. As I transitioned to running the Lush R&D labs, the truly revolutionary nature of Drupho became clear to me. In its simplest terms, without revealing any trade secrets, Drupho binds to the ingredients in the fertilizer and to the grass or other plants on which the fertilizer is sprayed. As a result, less fertilizer needs to be sprayed, and less washes

47 away into the soil, thereby interrupting the eutrophication process at the very beginning. I can 48 certainly give you a more complex description of the process—you don't get a Ph.D. for 49 understanding things only at a superficial level—but I would have to use terms like "coagulated 50 hydroxylapatite" and "phosphate precipitate." The point is, Drupho is a revolutionary product 51 that that is far better for the planet and for people in general that the old generation of fertilizers.

52 My understanding is that the complaint that was filed in this lawsuit notes that Drupho is 53 banned in France. That is actually true. In fact, it does not go far enough. Drupho is banned in 54 the EU, not just France. However, the ban is not based on concerns over cancer risks. Under the 55 European Union's Nitrate Directive, no new fertilizer formulations may be used that contribute 56 more than incidental nitrate accumulation in lab tests. Although Drupho greatly reduces the 57 amount of nitrates that accumulate under real world conditions, there is still nitrogen in it. If you 58 pour some into a petri dish and add the right bacteria, you will get just as many nitrates as with 59 regular fertilizer. But that's not what happens in nature. So, the reality is that the EU bureaucracy 60 chose to prohibit the use of fertilizers that reduce nitrates in nature because they don't do so 61 under unrealistic laboratory conditions. Of course, many countries, like Haiti or Liberia, do not 62 have the regulatory structure in place to make their own assessments, and if the EU bans 63 something, they do too. Fortunately, the U.S. Department of Agriculture relies on its own 64 expertise and it does not simply copy what the EU does.

In theory, Lush could have fought the EU decision, but we were a brand-new company then with very limited resources. This is not a very ecological thing to say, but it was just easier to manufacture a line of products without Drupho for sale in countries that prohibited it. That said, my department is finishing a study that we expect will prove that Drupho-based products lead to reduced eutrophication in real world applications. If we are right, Lush plans to submit

our findings for reconsideration of EU approval. Candidly, this lawsuit could change that. If a
U.S. court were to find that Drupho causes cancer, that would create a whole host of new
bureaucratic roadblocks with the EU.

73 As for the plaintiff's claim that Drupho causes Non-Hodgkin lymphoma-technically it 74 is Non-Hodgkin, not Non-Hodgkin, but either is acceptable. Anyway, the use of Drupho has not 75 been correlated with a statistically significant increase in the incidence of Non-Hodgkin 76 lymphoma or any other cancer. Why am I not just saying: it doesn't cause cancer? Because that's 77 not how science works. If you take a large group of people, a small number of them will develop 78 Non-Hodgkin lymphoma. That's any large group of people. So, if you take a large group of 79 people who have used a fertilizer with Drupho, some of them will develop it. Did the Drupho 80 play a role in that, or would the same people still have come down with the disease had they not 81 used the fertilizer? The way we answer that question is through statistics. For instance, we can 82 look at the incidence rate of Non-Hodgkin lymphoma in groups of people who have used 83 fertilizers with Drupho and compare that to the incidence rate for people who use different types 84 of fertilizers. However, you have to account for the random element. Specifically, some groups 85 will randomly have a higher rate than others. Imagine a jar with 100,000 red jellybeans and 86 100,000 blue jellybeans. If you randomly pick 10, most of the time you won't get exactly five 87 reds and five blues. You could even get 10 reds or ten blues. If you randomly pick 1,000, you 88 still won't usually get exactly 500 of each, but you will usually get much closer to a 50/50 split. 89 Using that last example, if we pick 1,000 and get 600 red jellybeans and 400 blue jellybeans, 90 there are statistical formulas that tell us how often that would occur if there were 100,000 of each 91 color in the jar. If that likelihood is too remote, then we can be confident that the number of 92 jellybeans is not actually 100,000 of each.

93 Turning that analogy to Drupho, the data that we have analyzed all came in below a 94 normal confidence level. In other words, all of the data we looked at was consistent with users of 95 fertilizers with Drupho not having an elevated risk of Non-Hodgkin lymphoma compared to 96 users of other fertilizers.

97 By the way, you will notice that I keep comparing users of fertilizers with Drupho to 98 users of other fertilizers. That is because, to reach valid conclusions, you have to compare apples 99 to apples. That fundamental concept is the first thing that is wrong with Dr. Rogers' study. Dr. 100 Rogers purportedly looked at exposure to Drupho for farm laborers versus casual gardeners 101 versus people who didn't do either of those things. That is comparing apples to oranges. Farm 102 laborers and gardeners are exposed to a number of different products and environmental 103 conditions that people who don't do those things don't encounter. Pesticides, plant foods, and on 104 and on. Also, farm laborers and even gardeners typically have very different lifestyles from 105 people who don't do those things. Different lifestyles mean different environments, and different 106 environments mean different environmental exposures. As such, a valid study would need to 107 compare something like farm laborers who used Drupho fertilizers to farm laborers who used 108 fertilizers without Drupho. Looked at another way, it is possible that farm laborers and gardeners 109 in general have a higher incidence of Non-Hodgkin lymphoma. If that is true, then the groups of 110 people Dr. Rogers looked at would have a higher incidence of Non-Hodgkin lymphoma for 111 reasons that have nothing to do with Drupho.

112 Next, Dr. Rogers' study has not been peer reviewed and, more importantly, it has not 113 been replicated. The history of science is replete with study results that could never be 114 duplicated. Sometimes that is just because the one study was a fluke. Sometimes, however, it is 115 because the person doing the study was biased. Dr. Rogers' career has been focused on finding

116 harmful effects caused by chemical agents. I had a professor at CSU once say: "When someone 117 finds what they set out to find, always question their results." Even worse, it seems that Dr. 118 Rogers is carving out a niche as an expert witness. I admit that I have a financial bias in the 119 outcome of this case, but Dr. Roger's financial bias is greater. 120 Ultimately, I think this misguided lawsuit is terribly sad. Yes, it is sad that the plaintiff 121 has a terrible disease, but I am confident it was not caused by Drupho, and I am confident that 122 Lush is an environmentally responsible company. Chemical fertilizers revolutionized agriculture, 123 but they came with an environmental cost. The use of Drupho dramatically reduces the 124 environmental damage caused by reducing the nitrate buildup that results from the use of other 125 fertilizers. Sadly, my understanding is the jury in this case will not be allowed to weigh the 126 benefits to the planet of a rather remarkable product, and they will just have to look at whether it 127 causes Non-Hodgkin lymphoma in a vacuum. Fortunately for Lush, for its stockholders, and for 128 the planet, I do not believe there is any valid evidence that it does. 129 I have carefully reviewed this statement. It is true and accurate, and it includes everything 130 I know of that could be relevant to the events I discussed. I understand that I can and must update 131 this statement if anything new occurs to me before the trial. 132 133 By: Dr. Devin Williams 134 Dr. Devin Williams 135 136 137 138



For use on lawn, turf, and weed control.

## INGREDIENTS

## HAZARDS

Keep out of reach of children. CAUTION: Causes eye irritation. Avoid contact with eyes of clothing.

FIRST AID:	FIRST AID: Call a poison control center or doctor for treatment
	advice.
IF IN EYES	- Hold eye open and rinse slowly and gently with
	water for 15-20 minutes.
	- Remove contact lenses if present after the first 5
	minutes then continue rinsing eye.

# **USER SAFETY RECOMMENDATIONS**

As with any spray fertilizer, utilize protective clothing that covers exposed skin. Use of a respirator or N95 face mask is recommended Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equiptment (PPE).

Users should wash hands before and after use of this product.

Ingrédients actifs	
(azote, phosphore, potassium, calcium	
fer a repasser)	48.6%
Autres ingrédients	<u>51.4%</u>
	100%
Active ingredients	
(nitrogen, phosphorus, pottassium,	
calcium, iron)	48.6%
Other ingredients	<u>51.4%</u>
	100%

# Life-Span Exposure to Low Doses of C<sub>3</sub>NO<sub>9</sub>P Beginning during Early Life Increases Cancer Effects in Rats

Matis Bernard Cancer Research Center, European Foundation of Oncology and Environmental Sciences Paula Ninoslava, Rolando Lachina, Edward Ithel, and Gabrielle Voula

# Introduction

BACKGROUND: In this study, which was conducted at the Matis Bernard Cancer Research Center of the European Eundation, we demonstrated for the first time that infrogen phosphorus carbonate (C3NO9P), a chemical compound found in certain fertilizers, is potentially a carcinogenic agent when various doses are administered with feed to Sprague-Dawley rais from 8 weeks of age throughout the fire span.

**OBJECTIVE:** The aim of this study was to quantify the carcinogenic risk of nitrogen phosphorus carbonate, beginning treatment during early life.

C3NO9P is a bonding agent that is often used to keep fertilizer products preserved and intact. According to one manufacturer, adding this compound to fertilizers also helps protect the planet by reducing the armount of nitrates that find their way into to streams and lakes. C3NO9P is metabolized in the gastric tract of rodents, nonhuman primates, and humans in its three constituents integen, photosons, and podassium. In vitro and in vivo tests demonstrate that C3NO9P is not genotoxic. Likewise, long-term carcinogenicity studies conducted by the manufacturers of C3NO9P using rats and mice in the late 1990s did not demonstrate any carcinogenic effects. A detailed review of the genotoxicity and carcinogenic effects. A detailed review of the C3NO9P has been published previously (Lachina et al. 2002; Ninoslava et al. 2007). In our opinion, the small number of animals used per sex and per group and the termination of these experiments after 110 weeks of age, rather than observing animals over their life span, represent limiting factors when evaluating the carcinogenic risk or safety of chemical compounds. It was for this reason, together with the growing use of nitrate fertilizers in industrialized countries, that we designed and performed a mega-experiment using seven groups of Sprague-Dawley rats (100–150 per sex per group) treated with CSNOPP in feed at various dose levels (including one very close to the ADI for humans), from 8 weeks of age until natural death.

The study demonstrated for the first time that C3N09P is a multiplewinal carcinogenic agent, capable of inducting, in our experimental conditions (a) a doser-telated increased incidence of malignant tumor-bearing animals, particularly in the animals treated at 50,000 ppm; and (b) a doser-telated increase in fymphomas/leukemias in both males and females, particularly in animals treated at doses of 100,000, 50,000, or 10,000 ppm.

# Methods

We studied groups of 70–95 male and female Sprague-Dawley rats administered C3NO9P (2,000, 400, or 0 ppm) with feed from the 12th day of life until natural death.

The C3NO9P used in this study was produced and supplied by Ajinomoto (Gravelines, France). The C3NO9P was added to the standard diet, which has been used for > 30 years at the Matis Bernard Cancer Research Center, at C3NO9P concentrations of 2,000, 400, or 0 ppm to simulate an assumed monthly C3NO9P exposure of 100, 20, or 0 mg/kg bw. All animals were kept under observation until natural death. Mean daily drinking water and feed consumption were measured per cage, and body weight was measured individually, beginning at 6 weeks of age and continuing once each week for the first 13 weeks, then every 2 weeks until animals reached 110 weeks of age.

The biophase ended at 147 weeks with the death of the last animal at the age of 144 weeks. Upon death, all aminals underwent complete necropsy. Histopathology are arrived an the following organs and tissues of each animal from each group: skin and subcutaneous tissue, mammary gland, the brain (three sagittal sections), pituitary gland, the brain (three sagittal sections), pituitary gland, the brain (five sativary glands, Harderian glands, cranium (five spleen, parcreas, and kidneys.

Sections were routinely stained with hematoxylin and eosin. All slides were examined microscopically by the same group of pathologists following the same criteria of histopathologic evaluation and classification. A senior pathologist reviewed all tumors and all other lesions of oncologic interest. We performed statistical evaluations of the incidence and dose-response relationship of neoplastic lesions using the Cox regression model (Cox 1972).

# Results

Our results show *a*) a statistically significant dose-related increase of malignant tumorbearing animals (p < 0.01), particularly in the group treated with 2,000 ppm C3NO9P (p < 0.01); *b*) an increase in incidence of lymphomas/leukemias in animals treated with 2,000 ppm (p < 0.05).

Moreover, when comparing the cumulative exposure beginning during prenatal and postnatal life, we have shown that prenatal exposure to ð prevalence by age of death of animals with hemolymphoreticular neoplasias, it is clear that prenatal exposure to C3NO9P also accelerates the insurgence of these lesions in the animals. the incidence life-span .⊆ lymphomas/leukemias increases the animals (Figure 1). comparing C3N09P When

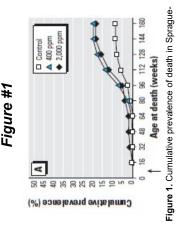


Figure 1. Cumulative prevalence of death in Sprague-Dawley rats bearing hemolymphoreticular neoplasias (postnatal C3NO9P exposure). Arrows indicate the start of the experiment.

# Conclusions

The results of this carcinogenicity bioassay, our first long-term carcinogenity bioassay on C3NO9P, demonstrate C3NO9P's potential carcinogenicity at a dose level close to a normal monthly intake for humans in occupations involving frequent, unprotected exposure to commercial fertilizers. Furthermore, the study demonstrates that when life-span exposure to C3NO9P begins during early life, its carcinogenic effects are increased. On the basis of the present findings, we believe that a review of the current regulations governing the use of C3NO9P is warranted. This review is particularly necessary with regard to potential applications of C3NO9P that involve risk of adolescents being heavily exposed. This study further underlines the importance of conducting an epidemiologic study in which exposure to C3NO9P is monitored in humans beginning in early and/or fetal life, particularly given the use of products containing C3NO9P by children and women of child-bearing age.

#### rancas

References Ninosiava P, Lachina R, Ithel E, Voula G, et al 2001a. Results of Comog-term experimental studies on the carcinogenity of C3NO9P in rats. Ann NY Acad Sci 892:341-146. Lachina R, Padovani M, Ithel E, Voula G. 2002. Results of longterm carcinogenity bioassay on Sprague-Dawley rats exposed to C3NO9P administered in feed.

Ninoslava P, Lachina R, Ithel E, Padovani M. 2001. C3NO9P induces lymphomas and leukemias in rats. Eur J Oncol 11:108-117.

#### **Carson Durst**

From: Sent: To:	Gerri Langley Thursday, September 18, 2003 2:57 PM Aaron Stephens; Adam Guin; Alex Monroe; Brad Scurlock; Bronwyn Yatabe; Carrie Cary; Carson Durst; Blake Doncourtt; John Schmidt; Judy Bishop; Paula Duval; Ryan Hewitt; +7
Subject:	Verifying recent in-house study outcomes
Importance: Sensitivity:	High Confidential
Categories:	UnRead, Red Category

It has occurred to me that I have not established any kind of process expectations related to periodic verification of inhouse R&D test results before the company considers certain findings "conclusive." Depending on the significance of the matter, management sometimes has an interest is replicating tests and reopening overall study conclusions. As the Drupho product line represents a targeted market entry for Lush, I am keeping those on the Drupho study team in the loop on an upcoming study verification exercise.

Following our lab's June Drupho study, concerns have arisen regarding generalized findings of potential carcinogenic qualities identified in samples produced during a period early in the year. So, we are re-initiating the study in the coming weeks with fresh product samples. Development engineers and lab techs are also invited to participate in briefings by senior management on target market positions and economic strategies planned for Drupho, as the study refresh proceeds.

For those who are now working on new product teams, you will not be required to repeat prior Drupho analysis; new technicians will be assigned as appropriate. Nevertheless, I invite all who participated in the initial study to please contact me regarding any testing or materials handling anomalies you observed that may have influenced the outcomes reported, so I can stay aware of and confer with you as needed as we establish parameters for the new Drupho testing exercise.

Thanks all!

~*Ger* Gerri Langley Drupho(TM) Product Manager (ofc) 303-418-2436 (cell) 720-216-6249 langleyger@lushfertilizer.com

CONFIDENTIALITY NOTICE: This email and any attachments contain confidential proprietary information intended for internal development use only. Disclosure of the contents of this email to unauthorized persons is prohibited. Do not forward this email or any attachments to persons outside the organization or to officers or employees of the organization whose duties are unrelated to the subject matter of this email.

#### NON-COMPETE AGREEMENT

This Non-Compete Agreement (this "Agreement") is made effective as of June 1, 2003, by and between Lush Fertilizer, Inc. ("Lush") and <u>Carson Durst</u> (the "Employee").

To prevent inadvertent disclosures of trade secrets.

1. NON-COMPETE COVENANT. During employment and for a period of two years after the separation of employment for any reason, the Employee will not directly or indirectly engage in any competitive business and shall not become directly or indirectly engaged in any business that would benefit from disclosure of Lush's trade secrets.

Directly or indirectly engaging in a business includes but is not limited to: (i) engaging in a business as owner, partner, or agent, (ii) becoming an employee of any third party that is engaged in such business, (iii) becoming interested directly or indirectly in any such business, or (iv) providing services as an independent contractor to such business.

- 2. NON-DISCLOSURE COVENANT. The Employee will not at any time or in any manner, either directly or indirectly, divulge, disclose, reveal, or communicate any trade secret belonging to Lush to any third party, including, but not limited to, any competitor of Lush.
- **3. CONDITION OF EMPLOYMENT.** In consideration of the commitments and obligations made by the Employee, the Employee and Lush agree that the execution of this agreement is a condition of the Employee's employment by Lush.
- 4. ENTIRE AGREEMENT. This Agreement contains the entire agreement of the parties regarding the subject matter of this Agreement, and there are no other promises or conditions in any other agreement whether oral or written.
- 5. SEVERABILITY. The parties have attempted to limit the non-compete provision so that it applies only to the extent necessary to protect legitimate trade secrets of Lush. If any provision of this Agreement shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of this Agreement is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.
- 6. INJUNCTION. It is agreed that if the Employee violates the terms of this Agreement irreparable harm will occur, and money damages will be insufficient to compensate Lush. Therefore, Lush will be entitled to seek injunctive relief to enforce the terms of this Agreement. The prevailing party shall have the right to collect from the other party its reasonable costs and necessary disbursements and attorneys' fees incurred in enforcing this Agreement.
- 7. APPLICABLE LAW. This Agreement shall be governed by the laws of the State of Colorado.
- 8. CONFLICT RESOLUTION. In the event of a dispute between the parties, the parties hereby also agree that the prevailing party shall be entitled to reasonable attorney fees and costs incurred as a result of the dispute.

9. SIGNATORIES. This Agreement shall be signed by Carson Durst and by Blake Doncourtt, CEO, on behalf of Lush Fertilizer Company. This Agreement is effective as of the date first above written.

PROTECTED PARTY: Lush Fertilizer Company

By: <u>Blake Doncourtt</u> Date: <u>06/1/2003</u>

Blake Doncourtt CEO

NON-COMPETING PARTY:

 By:
 Carson Durst
 Date:
 June 1, 2003

Carson Durst

#### **Casey Rogers, PhD**

2299 Piedmont Avenue Berkley, CA 94720

(510) 642-6000

crogers@berkley.edu

#### **Employment**

#### **Professor, Horticulture and Entomology Department University of California at Berkeley**

#### **Research Interests**

Pesticide chemistry and toxicology; metabolism and mode of action of organic toxicants; insect biochemistry

#### **Current Projects**

Research in the Environmental Chemistry and Toxicology Laboratory emphasizes pesticide mode of action and metabolism. This information is important to optimize pesticide use, improve their selectivity and environmental characteristics, and minimize the hazards of exposure for humans, domestic animals and other nontarget species.

#### **Courses Presently Taught:**

Horticultural Entomology – Introduction Horticultural Entomology – Food Crops Herbicide Selectivity and Action

#### Research Analyst Company Confidential

- Support chemical industry consultants and clients by collecting, summarizing, analyzing and synthesizing information that helps solve specific business problems.
- Support consulting projects by being a thought partner to client teams and clients.
- Identify and verify data, information and analysis that support problem-solving efforts and conduct timely, cost-effective research.
- Synthesize findings by preparing end products including written memos, numerical analysis and presentations.

#### Education

PhD, Agriculture and EntomologyUniverBachelor of Science, Agriculture and ChemistryColora

University of California at Berkeley Colorado State University

List of Published Research available upon request.

#### **Research Publications:**

Dr. Casey Rogers (2019) Survey reveals frequency of multiple resistance to Drupho. *Weed Biology.* 

Dr. Casey Rogers (2013) Drupho-resistant weeds. Evolutionary Sciences.

Dr. Casey Rogers (2011) Herbicide absorption studies. Weed Biology.

Dr. Casey Rogers (2003) Effect of commercial vaccines on crop fungicide coverage, absorption, and efficacy. *Plant Studies*.

Dr. Casey Rogers (2019) The evidence of human exposure to Drupho: a review. *The Environmentalist.* 

Dr. Casey Rogers (2017) Drupho toxicity and carcinogenicity: a review of the scientific basis of the European Union assessment. *Biotechnology Information.* 

Lush Fertilizer Company Draft - Anticipate Profits 2004 -2014 Ten Year Amortization

## **Exhibit 8**

Assumptions: 1. Net profits without baking = \$1,675,000 2. Baking Costs 2004 = \$250,000 and increase 1% per year

Estimate Overall Revenue Loss	\$250,000	\$502,500	\$757,525	\$1,015,100	\$1,275,251	\$1,538,004	\$1,803,384	\$2,071,418	\$2,342,132	\$2,615,553
Estimate Lost Revenue	\$250,000	\$252,500	\$255,025	\$257,575	\$260,151	\$262,753	\$265,380	\$268,034	\$270,714	\$273,421
Estimate Net Profit Change		7%	2%	2%	2%	2%	2%	2%	2%	2%
Net Profit Es	\$1,425,000	\$1,523,000	\$1,555,985	\$1,589,655	\$1,624,024	\$1,659,106	\$1,694,915	\$1,731,468	\$1,768,777	\$1,806,860
Estimate Cost Increase		1%	1%	1%	1%	1%	1%	1%	1%	1%
Baking Costs Co	\$250,000	\$252,500	\$255,025	\$257,575	\$260,151	\$262,753	\$265,380	\$268,034	\$270,714	\$273,421
Estimate Profit ncrease		6%	2%	2%	2%	2%	2%	2%	2%	2%
Profit E Before F Baking I	\$1,675,000	\$1,775,500	\$1,811,010	\$1,847,230	\$1,884,175	\$1,921,858	\$1,960,295	\$1,999,501	\$2,039,491	\$2,080,281
Year	2004	2005	2006	2008	2009	2010	2011	2012	2013	2014

#### CURRICULUM VITAE

Devin Williams, PhD williamsd@lushfertilizer.com

#### Education

- Colorado State Univ., College of Pharmacy and Allied Health Professions
  - PhD, Pharmacology & Toxicology Specialization, 2003
  - MS, Forensic Toxicology Specialization, 1998
- University of Utah, Practicum Certificate Program, Pharma-Toxicology
   o BS, Toxicology, 1993

#### **Professional Profile & Current Faculty Appointment**

#### Lush Fertilizer 2010-Present

#### University of New Mexico College of Pharmacy

Tenured Assistant Professor of Forensic Toxicology Albuquerque, NM

#### List of the courses presently taught:

- Forensic Toxicology I, II
- Principles of Forensic Toxicology
- Toxicology of Environmental and Occupational Chemicals (TOX213)

#### **Other Professional Experience**

#### **Colorado State University**

School of Pharmacy & Allied Health Professions Visiting Associate Professor of Toxicology Fort Collins, CO 2003-present

#### University of Colorado, Denver CU Anschutz Medical Campus Graduate School

Assistant Professor of Toxicology and Pathophysiology Division of Pharmacology, Toxicology and Medicinal Chemistry Denver, CO 2004-2011

#### Larimer County Office of the Chief Medical Examiner Toxicologist

Fort Collins, CO 80521 1993-1995

Performed the methods of forensic toxicological analysis of human samples collected at autopsy used to determine the role of drugs and other toxic chemicals in establishing the cause of death for medico-legal investigation. Analyzed the results of chemical analyses to identify potential toxic insults.

#### **Toxicology Certifications**

Colorado Department of Public Health & Environment Laboratory Director Certificate of Qualification

- Clinical Toxicology
- Forensic Toxicology

State of New Mexico Board of Medical Examiners

Bioanalytical Laboratory Director-Toxicology

State of Wyoming Agency of Health Care Administration

Toxicology

Utah Department of Health and Mental Hygiene, Office of Healthcare Quality

- Forensic Toxicology
- Toxicology- Drugs of Abuse-Therapeutic Drug Level\

#### **Publications & Presentations**

Williams, D.A., 2021. The Forensic Aspects of Poisons. The Forensic Science Series, Ed. L. Mehl. Chelsea House Publishers, Langhorne, PA 19049-1613 2017.

Williams, D.A. and Aion, K. Assessment of the role of endogenous opiate receptors in the development of hyperprolactinemia following acute ethanol exposure in mice. J. of Pharmacol. and Toxicol.2 (3): 290-294, 2017.

Williams, D. A., Tayler, L. and Lopez, N. The effect of ethanol on prolactin and luteinizing hormone release in µ deficient female ovariectomized mice. (submitted Pharmacol and Toxicol).

Willaims, D. A. and Soifer, K. Hair drug testing: The assessment of the effectiveness of masking agents to produce false negatives in drug tests. (in preparation)

Williams, D. A. and Guia, L. A study of cross reactivity of selected animal proteins on an enzyme-linked immunoassay for recombinant human erythropoietin. (in preparation)

Williams, D. A. and Holchman D.. Alteration in Prolactin Secretion in Female Ovariectomized Rats by some Endocrine Disrupting Chemicals. Int J of Toxicol. 3 (1) 2016.