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# Black Dirt Farm

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## **Testimony to Senate Agriculture Committee**

January 28, 2020

Submitted by Tom Gilbert, Black Dirt Farm Owner/ Operator

### **Summary**

We are poultry farmers looking for a more economically and ecologically sustainable way to raise poultry. To protect our right to farm, our right to operate businesses without undue and unfair burdens from the State, and to support innovations in agriculture that can help address global warming, waste, water quality degradation, and support thriving rural economies, we are asking you to **support Senate Bill 265**. Additionally, we need to stand by the original intent of the Universal Recycling Law and uphold the key components of its Organics Management Section that will ensure the agronomic and feed value that food scraps offer. Specifically, we need to remain steadfast in our commitment to its hierarchy for the priority use for organic materials while also stewarding the resource and preventing its contamination with trash. Recent Agency of Natural Resource reinterpretations of the Law seem to undermine the legislative intent and bring Vermont's organic management away from the original goals of the legislation.

### **Ecologically Regenerative Farming and the Natural History of Chickens**

Much like the movement to raise livestock on grass rather than grain, we are attempting to harness the native feeding strategies of our animals, in this case the Red Jungle Fowl from which modern chickens descend, to develop more suitable and less energy-intensive feeding strategies. We utilize the discards of the food system to grow bacterial protein for the hens to forage. Our process is akin to making silage, and our import of discarded food is similar to dairy and beef operations sourcing spent brewery grain to feed cows. While further research will benefit this practice, existing research has found it to be comparably productive and has not found concerns with Salmonella Enteritidis (BDF SARE).

### **Social History and Regulation of Feeding Hens on Compost**

Humans and chickens have been in a co-evolving for over a thousand years, in part due to the chickens' natural tendency to forage detritus and human discards. This relationship continued to evolve into the 20<sup>th</sup> Century, when, during World War II, the practice was specifically encouraged by the government as part of the overall promotion of wartime efforts to promote home and local food production. Again, this practice was specifically sanctioned by the State of Vermont as recently as 2007 when the Vermont Attorney General's office on behalf of the Agency of Agriculture, and the Vermont Agency of Natural Resources issued separate letters specifically stating that the practice of

IN 2014-15  
BLACKDIPPT FARM,  
CONDUCTED A STUDY  
ON THIS PRACTICE, IN-  
CLUDING PATHOGEN  
ASSESSMENTS WITH  
USDA FUNDING.

foraging hens on a food scrap-based compost is farming and does not constitute a solid waste activity. In 2017 a memo was released by the Agency stating there would be a public process to review and discuss regulating this practice, after which the public submitted comments, and the process was summarily dropped without any communication. In 2018 a second memo was released determining, for unclear and vague reasons with legally circuitous language, establishing the practice as no longer being farming.

The current confusion about this practice is based on the definition of farming and how the Agency has arrived at the decision that our practices no longer constitute farming, when nothing has changed legally or legislatively that appears to merit such a drastic reinterpretation. While the Agency often portrays this as a situation of rogue operators asking for the rules to be loosened to accommodate them, the Agency was able to officially recognize this practice for over a decade without problem. In regards to poultry farming the Required Agricultural Practices state that farming is: '2.16 (b) the raising, feeding, or management of livestock, poultry, fish, or bees.' Nowhere in the definition does the State provide a prescriptive model for what constitutes feeding or establish that the applicability of the definition considers feeding in any way. In her 2007 letter Cathy Jamieson, VT ANR Solid Waste Program Director, stated "ANR does not regulate food waste that is fed to animals..... Generally, ANR would refer to the Agency of Agriculture with respect to material used as animal feed."

Recently, the Agency of Agriculture, citing the commercial feed law and the FDA Food Safety and Modernization Act (FSMA), has shifted its interpretation without sufficient public process to define this feeding strategy as a solid waste activity. Neither of these rules actually target this practice or the practitioners effected, and the Agency has not been able to provide sufficient explanation as to how these apply. The Commercial Feed Law, for instance, is specific to the manufacturing and distribution of feed commercially, a practice none of the farmers implicated in this issue are engaged in. Similarly, the sources of food scraps and the nature of our operations are exempt from FSMA.

Most recently the Agency has shifted its official explanation as to why a change in interpretation is required, citing the Vermont Universal Recycling Law as having caused a widespread uptick in the practice, resulting in odor and other complaints the Agency is not empowered or equipped to address. While it seems odd for an agency who is otherwise unphased by odors created by other farming sectors to raise this concern, it has also turned out to be a meritless issue. Based on a 2019 Rural Vermont FOIA request for complaint records, the Agency revealed that over a 12 year time period only roughly 15 calls were received, however not even all of these were complaints. Actual complaints were 13, and of these only 9 were odor complaints pertaining to two farms and originating from 2 neighbors, and 4 were water quality complaints pertaining to one farm from one neighbor, which were subsequently found to be invalid by the Agency. As a result, it appears the entire State of Vermont is averaging about 0.75 odor

complaints per year, a shockingly low number. And even so, is it honest to even argue that the small number of small farmers utilizing this practice actually constitute an odor concern that is greater than the liquid manure systems of the dairy sector?

### **What's at stake?**

We believe that farming is important to Vermont and society at large, and that we collectively find ourselves in an unprecedented moment in time when the environmental and social issues we face have reached a crescendo and require a new level of clear-eyed, bold action and cultural evolution. While farming is often cited as a net contributor to global warming and water quality issues, we also recognize that innovation in agriculture can also provide a solution to these challenges while yielding other great outcomes like thriving rural communities and their economies. While innovation can be disruptive, it must be welcomed and creatively supported in order to evolve and reflect contemporary circumstances. Not only should we be looking for opportunities to support innovation, we should at the least not be treating creative practitioners with undue oversight and disparaging their work in general, and especially when known violations of the commercial feed law and rules around feeding swine food scraps are not otherwise being enforced. Regulatory parody is important to establishing a thriving and viable agricultural sector that can adapt to the landscape we find ourselves in at this moment in time.

### **Implications**

1. Growth of scale-appropriate and ecologically sustainable egg farms – egg production in Vermont is clearly one of the areas of agricultural production that continues to lag behind other agricultural sectors. This is largely due to feed costs. Even in large conventional operations in which feed is the cheapest per egg produced, approximately 70% of the Cost of Goods Sold and 30% of the retail value of an egg are associated with feed. Additionally, grain inputs have a large carbon footprint. **Alternative approaches to feeding laying hens are critical to the growth and sustainability of this sector.** Without innovation there will either be no substantive increase in local egg production or any increase in egg production will be paired with egg prices that remain unaffordable to many Vermonters.
2. **Defining this practice as solid waste will all but kill it because it would result in farmers losing their farming status.** Shifting this practice out of farming and into solid waste has many implications beyond requiring an ANR permit. Losing agricultural status will:
  - a. Subject farms to the burdens and unpredictable nature of local zoning permits, which we have otherwise agreed is not necessary or useful. Black Dirt Farm is located in an agricultural/ residential zone and therefore would require a variance to proceed.
  - b. **Subject some farms to regulatory burdens and expenses other farms are not subjected to.** While most farms do not require storm water or solid

- waste permits because of the MOU between ANR and AAFM on the matter, this would result in the permits (up to three) being applied to isolated cases, resulting in unfair market disadvantage. Additionally, these farms would be subjected to solid waste permitting. In total, a farm whose status is re-assigned to solid waste could incur at least 6 additional permits not necessary on other farms. With each permit comes added costs of site improvements, potentially costing an operator an additional \$50-150,000 without the support of agricultural cost-sharing programs, and other on-going compliance activities.
- c. Result in loss of access to technical support and BMP funding to improve operations.
  - d. Potentially compromise Current Use status and/or agricultural easements.
  - e. Impede farmers' ability to haul feed to hens on Class 3 roads when they are posted.
3. Implementing the Universal Recycling Law will be undermined. Poultry farmers play an important role in small and mid-scale solutions for organic materials, especially in the rural parts of the state where collection costs are high and scale is limited. Diversified, integrated operations relieve some of the scale issues and enable economic viability at a smaller scale.

### **Take-Home Message for Committee**

The desired growth and development in the agriculture sector, as expressed through the Working Lands Initiative and Farm to Plate, is possible and within reach if we align our strategic approach with their goals. Additionally, it is possible for Vermont to support that development in conjunction with other State goals, such as water quality, emissions reduction, and recycling, to develop a truly robust and vibrant food system. This will require a new approach to problem solving and the assumptions we base our strategy on. Innovation is, by nature, disruptive. To support innovation we need the goals, values and culture of State agencies to reflect this. Current Agency of Agriculture and Agency of Natural Resources interpretations of their rules and State law reflect barriers to achieving meaningful outcomes for agricultural, economic and ecological state goals. Fixes are required to address existing problems pertaining to the definition of a farm and the State's interpretation of the Universal Recycling Law's Organics Management section. Further opportunities can also be opened up with the clarification of what our shared intent is for these and other sectors.

Specifically, we must ensure poultry farmers' right to feed their birds, within the boundaries of health and safety, as they wish. Currently poultry farmers that forage their laying hens on composting systems are facing a unique level of regulation and scrutiny compared to other farmers. These feeding systems have the opportunity to help grow the poultry sector, while also providing the State with a distributed infrastructure base to manage discarded food scraps and other organic materials.

Separately, we need to stand by the original intent of the Universal Recycling Law and uphold the key components of its Organics Management Section that will ensure the

agronomic and feed value that food scraps offer. Specifically, we need to remain steadfast in our commitment its hierarchy of use for organic materials while also stewarding the resource and preventing its contamination with trash.

## **Background**

Black Dirt Farm is a diversified and integrated family farm in the Northeast Kingdom. Our farm model reflects the ecological flow of carbon through the food system. We aim to mimic ecological systems in a scaled agricultural system while yielding as many total benefits for our community at large. We collect food scraps from our community that we blend with 11 other ingredients into a compost mix for foraging hens on. We then make compost and worm castings with the excess food and manure, which we use to nourish our soils and crops, as well as sell. We grow salad greens, tomatoes, hemp and hay, as well as raise horses, broiler chickens and beef cows.

We collect roughly 27 tons of food scraps per week from approximately 65-70 businesses, institutions, and residential drop off locations. Roughly 40% of the food scraps we collect are delivered to Tamarlane Farm in Lyndonville and Lamoille Soil in Hyde Park for making compost. The other 60% is delivered to our own farm where it is utilized in a series of dovetailed enterprises that are designed to mimic the flow of carbon through an ecosystem in a scaled agricultural system. Incoming food scraps are blended into a compost mix and fed to laying hens. We sell eggs in northern and central Vermont, as well as into Boston. The rejected feed – the portion of the mix the hens do not consume – is then turned into compost, which is used on our fields, sold locally in bulk, and sold in bags to retailers. Seasonally, some batches of compost are processed in our Aerated Static Pile composting system that diverts pile heat into our 3000 square foot greenhouse. A portion of the compost is fed to worms each week to make worm castings, which is sold in bags to the Vermont, New Hampshire and Massachusetts retail markets and through direct order elsewhere. Our produce is sold locally through groceries, restaurants and our farm stand. Our hemp is sold directly to a CBD processor, and our hay is consumed by our own animals and used in our compost recipe. Our intensive pasturing system supports horses, beef cows and broiler chickens.

We have been in business for four years and employ five people year round, and a sixth seasonally. We anticipate constructing a new barn for laying hens and worms, which will allow us to significantly increase our flock size and improve our operating systems.

In addition to owning and operating Black Dirt Farm, I serve as the Town Moderator for the Town of Stannard, as well as its Supervisor for the Northeast Kingdom Waste Management. I am a founding and current Board Member of the Center for an Agricultural Economy in Hardwick, as well as the Poultry Farmers for Compost Foraging.

## **Our approach to farming**

We have set out to develop a farm model that is financially viable while mitigating unnecessary inputs and reducing the use of energy and loss of nutrients in the food system. Our farm model is designed to reduce the scale to which we need to grow through integrating a series of dovetailed enterprises that allow us to realize added value from a variety of different points in our value chain. Our methods are ecologically informed and designed to mimic ecological systems. We believe in the use of science to advance practice

and, to this end, have been studying the practice of foraging hens on compost through a USDA SARE grant and partnerships with UVM researchers.

### **The precedent for foraging poultry on compost**

This feeding practice is an effort to ecologically model scaled poultry operations on the natural history of chickens. All modern chickens are believed to descend from the Indonesian Red Fowl. While much of our understanding of these birds remains limited scientifically, it is recognized that these birds forage the decomposer system of the jungle floors they roam. We are utilizing composting systems to mimic this function, growing bacteria on discarded food to supply protein and other nutrition for the hens. Like making silage, we take a raw ingredient and utilize microorganisms to prepare it to feed to our animals.

### **Opportunities to Strengthen and Diversify Vermont Agriculture**

1. Poultry is under represented in the Vermont Food System. Egg markets present a good opportunity, however feed costs are proportionally very high
2. Value chain – operations that effectively tap and capture various points along a value chain can retain more value at a smaller scale, reducing their ecological and social impacts.
3. Local Needs equal local opportunities – building intrinsic economies will sustain long term economic, social and ecological vibrancy of local communities.
4. Food Scrap Collection and Compost markets – distributed systems make sense in VT. Food scraps are heavy and cost a lot to collect and transport. This is best done at a local and regional level, which also reflects its generation patterns. Equally, the compost market is very dispersed and often exists in the rural areas where farming exists. Pairing distributed collection and product markets with an already decentralized farm base makes sense.
5. Integrated operations and the utilization of local inputs retains dollars in the local economy.

### **Actions Required**

1. Protect Poultry Farmers – Pass S265 and ensure farmers' existing flexibility to determine the feeding regime for their own flocks, without compromising their agricultural status, and ensure that these farms are not treated differently than other farming operations. The significance in changing the regulatory status of a farm to a solid waste facility should not be overlooked. This would trigger up to at least six new permits, expensive facility upgrades, zoning requirements, the inability to transport feed when roads are posted, current use and land conservation questions, and make state and federal agricultural cost share and support programs unavailable to these operations. Not only would this impede growth in this sector and likely undermine the existing growth, it would result in a market disadvantage
  - a. Clarify through legislation that poultry farmers utilizing compost foraging systems are agricultural operations

- i. Ensure that post-feeding compost blends are considered and defined as 'principally-produced on the farm' like manure, waste feed and spent silage.
    - ii. Ensure that this practice is not subject to the commercial feed law
    - iii. Ensure poultry farmers utilizing this feeding strategy be treated and regulated in a manner consistent with other farms of this scale
    - iv. If BMPs are established, ensure that they are based on sound science and not arbitrary, and that funding is available to support their implementation.
    - v. Ensure regulatory parity across farms
  - b. Support poultry farmers innovating compost foraging systems with technical support, research and funding
2. Steward the resource value of food scraps and maintain the integrity of the Organics Management section of the URL. Specifically, ensure that the 'hierarchy of use' is adhered to and that source separation is supported by the State.
3. Ensure that farms and food rescue programs, and the assets they represent in the implementation of the URL, are codified in the law by including them as triggers for the Organics mandate. Either expand the mileage radius from facilities to 50 miles, or update the language to trigger the requirements when services are available. This will further stimulate and embolden the private and non-profit sectors to expand services and grow operations.
4. Enliven Vermont's efforts to build a vibrant food system by connecting with other state goals and developing cross-sectional approaches to innovation, market development, and support services. Increase active collaboration and problem solving across agencies and develop unified vision for the state.

## Organics Hierarchy Excerpts from URL

Note: italics, bold and underlines added for emphasis

Sec. 1. 10 V.S.A. § 6602 is amended to read:

### **§ 6602. DEFINITIONS**

(31) "Food residual" means source separated and uncontaminated material that is derived from processing or discarding of food and that is recyclable, in a manner consistent with section 6605k of this title. Food residual may include pre consumer and postconsumer food scraps. "Food residual" does not mean meat and meat-related products when the food residuals are composted by a resident on site.

(32) "Source separated" or "source separation" means the separation of compostable and recyclable materials from noncompostable, nonrecyclable materials at the point of generation.

Sec. 6. 10 V.S.A. § 6605k is added to read:

### **§ 6605k. FOOD RESIDUALS; MANAGEMENT HIERARCHY**

(a) It is the policy of the state that food residuals collected under the requirements of this chapter shall be managed according to the following order of priority uses:

- (1) Reduction of the amount generated at the source;
- (2) Diversion for food consumption by humans;
- (3) Diversion for agricultural use, including consumption by animals;
- (4) Composting, land application, and digestion; and
- (5) Energy recovery.

(b) A person who produces more than an amount identified under subsection (c) of this section in food residuals and is located within 20 miles of a certified organics management facility that has available capacity and that is willing to accept the food residuals shall:

(1) Separate food residuals from other solid waste, provided that a de minimis amount of food residuals may be disposed of in solid waste when a person has established a program to separate food residuals and the program includes a component for the education of program users regarding the need to separate food residuals; and

(2) Arrange for the transfer of food residuals to a location that manages food residuals in a manner consistent with the priority uses established under subdivisions (a)(2)–(5) of this section or shall manage food residuals on site.