Blue Spruce Farm, Inc.

1796 VT Rte. 22A
Bridport, VT 05734
(802)758-2179

www.bluesprucefarmvt.com

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Dear Senators:

We are writing regarding the $1.6 million for Capital Equipment Assistance Grants for Phosphorus Extraction Equipment that is in the FY19 Capital Bill. We understand that this funding is up in the air and up for debate. Since we feel so strongly about Phosphorus Extraction that we are implementing the technology on our farm, we wanted to reach out and make ourselves known to you and available to answer any questions in support of this funding.

We have a digester system that has been in place since 2005. An add-on phosphorus extraction system consists of a dissolved air floatation unit (DAF) unit and filter press to remove **from 80-95%** of the phosphorus from the digestate.

The benefits of phosphorus extraction are many:

- Having the phosphorus available in this form would allow precision application of the nutrient, even to far off fields, consistent with our Nutrient Management planning goals.

- Opportunity and the flexibility to move the phosphorus entrained in the DAF system off the farm, out of the state, turning it into a value added product.

- Phosphorus is currently the limiting factor restricting additional manure aeration of grass/hay fields between cuttings, when the weather is optimal and there is a growing plant that can utilize the nitrogen, and the irrigation is needed. Additionally, feeding the growing plants appropriately increases yield and improves soil biology.

- This would result in less manure left in storage in the fall to be injected into corn fields. Our goal is to have very minimal manure to inject into corn ground in the fall where it provides the least value and is at greater risk of loss.

We hope this system becomes an available best management practice (BMP) for more farms in Vermont. Currently, the cost of these systems makes them prohibitive. We certainly believe these are excellent public investments for our farms and our communities as we are leading the way to clean water through improved soil health, increasing organic matter and ultimately improving our air quality. Phosphorus is an essential nutrient for all forms of life. It is a key element in our DNA and all living organisms require daily phosphorus intake to produce energy. It cannot be replaced and there is no synthetic substitute: without phosphorus, there is no life. Proper management of this finite nutrient is essential, and it includes Phosphorus recovery technology.

Feel free to reach out to us with any questions, now or in the future.

Sincerely,

Marie Audet