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Testimony before the Assembly Committee on Agriculture

Senator André Jacque
January 9, 2024

Chairman Tranel and Members of the Assembly Committee on Agriculture:

Thank you for holding this hearing and the opportunity to testify before you in support of Assembly Bill 25. Wisconsin agriculture is pursuing a number of best practices and initiatives when it comes to tackling manure storage and handling to reduce runoff. One of the more promising approaches for a dairy farm to reduce pressure for excessive spreading is to compost their manure. In talking to experts who work with farmers to address the financial and logistical hurdles, it became clear that Wisconsin farms looking to make this environmentally friendly change face an additional regulatory obstacle to gaining market access to sell the valuable organic compounds and soil inputs produced through the composting process that have been shown to create a profit center in other states.

Current law requires a fertilizer distributed in Wisconsin to be guaranteed to contain a combined weight of nitrogen, phosphorous, and potassium that is at least 24 percent of the total weight of the fertilizer unless DATCP promulgates a rule exempting the fertilizer or DATCP grants a permit authorizing the distribution of the fertilizer as a nonagricultural or special-use fertilizer.

These requirements currently make organic products of composting unsaleable in Wisconsin. Assembly Bill 25 makes a number of reasonable changes to these requirements that apply to fertilizers and soil or plant additives that are derived from converting manure into compost and compost byproducts, thereby removing a barrier to the economic viability of manure composting in Wisconsin that is not present in other states. This initiative is identical to 2021 SB 113/AB 229, which passed both the Senate Natural Resources & Energy Committee and Assembly Agriculture Committee unanimously, and the Senate floor on a voice vote. Unfortunately, the bill was not taken up by the full Assembly last session, although during the 2019-'20 session essentially identical legislation was passed by the Assembly Agriculture Committee on a unanimous vote and passed the full Assembly on a voice vote, while the full Senate did not take up the bill. This legislation has already passed the Senate Agriculture and Tourism Committee this session on a unanimous 9-0 vote and the full Senate on a voice vote.

Marketing manure can be a beneficial, low-risk way for livestock producers to manage animal waste on their farms in a sustainable way while incorporating a value-added product into their overall business plan. The opportunity to sell a waste product and

recoup an economic benefit while reducing potential environmental impact is a much sought-after outcome this legislation will help to create. I appreciate the assistance of DATCP in developing this legislation over past sessions and have attached a copy to my testimony of a sample label created by the DATCP showing what could be approved following passage of AB 25.

Thank you for your consideration of Assembly Bill 25. I'm happy to take any questions.

SPA Product Sample Label

Super Compost

Super Compost is a premium compost blend of Cow Manure and Pure Earthworm Castings. This blend is an excellent source of microbial food to promote soil fertility and plant health.

Active Ingredients

Bacillus subtilis ..... $5x10^6$ CFU/ml
Bacillus pumilus ..... $3x10^6$ CFU/ml
Bacillus fimus ..... $1x10^6$ CFU/ml

Inert Ingredients

Compost medium

For professional, home, and garden use.

Use Directions

Gardens:

Apply 1 cup of Super Compost around each plant. Work Super Compost into the top 2 inches of soil. Water area until the ground is saturated. Reapply every 3 weeks during the growing season.

Potting Plants:

Fill pot with Super Compost and place plant directly in the pot. Gently firm the Super Compost around the base of the plant and water until the pot is saturated.

Company specific warranty statement

Manufactured and Guaranteed by:
Super Compost LLC
3510 Compost Drive, Compost, WI 03510
608-351-3513

Net Weight - 10 lb

Combination Product Sample Label

Super Compost 1-1-1

Super Compost is a premium compost blend of Cow Manure and Pure Earthworm Castings. This blend is an excellent source of microbial food to promote soil fertility and plant health.

Guaranteed Analysis

Plant Nutrients
Total Nitrogen (N) 1.00%
Available Phosphate (P2O5) 1.00%
Soluble Potash (K2O) 1.00%

Plant Nutrients derived from: Cow Manure Compost, Earthworm Castings.

Soil or Plant Additive Active Ingredients
Bacillus subtilis ..... $5x10^6$ CFU/ml

For professional, home, and garden use.

Use Directions

Gardens:

Apply 1 cup of Super Compost around each plant. Work Super Compost into the top 2 inches of soil. Water area until the ground is saturated. Reapply every 3 weeks during the growing season.

Potting Plants:

Fill pot with Super Compost and place plant directly in the pot. Gently firm the Super Compost around the base of the plant and water until the pot is saturated.

Company specific warranty statement

Manufactured and Guaranteed by:
Super Compost LLC
3510 Compost Drive, Compost, WI 03510
608-351-3513

Net Weight - 10 lb

Proposed Label

Diamond t Ag ®

DIA The Gift ™

Microbial Enzyme Cofactors

This trace and ultra-trace element input is intended to be used to support the plant/soil microbiome as part of environmentally-sound programs for plant nutrition that include crop rotations, cover cropping, no-till, reduced-till, mulching, natural minerals, and compost application.

Vermicompost Extract from Worm Castings Feedstock

Directions for Use:
Apply as a foliar at 1 pint per acre.

Typical Geochemical Analysis ($\mu g\ kg^{-1}$)

Ag	4.5	Eu	21	Na	106,925	Sr	8,174
Al	801,411	Gd	136	Nd	812	S	4,456,402
As	754	Ga	550	Ni	2,878	Sb	96
Au	67	Ge	15	Nb	20	Sn	66
Ba	6,311	Hf	23	Os	15	Ta	41
Be	378	Hg	15	Pd	15	Te	19
Bi	105	Ho	72	P	42,461	Tb	252
B	4,942	In	110	Pr	109	Tl	2
Br	193	I	11	Rb	58	Th	214
Cd	57	Ir	0.61	Re	0.65	Tm	11
Ca	533,567	Fe	3,173,369	Rh	67	Ti	6,643
Ce	827	K	5,198,490	Ru	13	W	21
Cs	0.75	La	218	Sm	87	U	58
Cl	4.10	Lu	17	Sc	565	V	708
Cr	1,328	Pb	135	Se	349	Yb	76
Co	3,340	Mg	269,753	Si	529,431	Y	331
Cu	1,674	Mn	9,735			Zn	6,395
Dy	110	Mo	415			Zr	59
Er	53						

Net Contents:

Manufactured by;
Diamond t AG LLC
PO Box 613
Reedsburg, Wisconsin 53959
Telephone: (608) 279-3521

SCOTT KRUG

STATE REPRESENTATIVE • 72nd ASSEMBLY DISTRICT

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P.O. Box 8952
Madison, WI 53708-8952
Rep.Krug@legis.wi.gov

TO: Assembly Committee on Agriculture

FROM: Rep. Scott Krug

RE: 2023 ASSEMBLY BILL 25

DATE: January 9, 2024

I write today to thank the committee and Chair Rep. Tranel for holding this hearing on AB 25, and to express my support for the bill.

Manure storage and disposal is a challenge in agriculture. The age-old use of manure in agriculture is, of course, to fertilize the fields that produce crops. Today we make extensive use of commercially-produced fertilizer for this purpose.

The composting of manure before it is applied to cropland, can help reduce problems from raw manure polluting groundwater and creating nutrient runoff into surface water.

Marketing manure can be a beneficial, low-risk way for livestock producers to manage animal waste on their farms while incorporating a value-added product into their overall business plan. This legislation is expected to help create an opportunity to sell a waste product and recoup an economic benefit while reducing potential environmental liability.

Current law contains some requirements for commercial fertilizers. Current law requires a fertilizer distributed in Wisconsin to be guaranteed to contain a combined weight of nitrogen, phosphorous, and potassium that is at least 24 percent of the total weight of the fertilizer unless DATCP promulgates a rule exempting the fertilizer or DATCP grants a permit authorizing the distribution of the fertilizer as a nonagricultural or special-use fertilizer. These requirements currently make organic products of composting unsaleable in Wisconsin.

AB 25 would make a number of reasonable changes to these requirements that apply to fertilizers and soil or plant additives that are derived from converting manure into compost and compost byproducts, thereby removing a barrier to the economic viability of manure composting in Wisconsin that is not present in other states.

MORE

AB 25 would make several changes to current law, which are explained in the LRB analysis. The changes would relax rules in current law that are fairly easy to comply with when dealing with a manufactured fertilizer but which could cause difficulties when labelling and marketing a natural product such as composted manure.

AB 25 would also preclude DATCP from requiring a controlled experimental field test to substantiate the efficacy and usefulness of a soil or plant additive produced from converting manure into compost. Under current law, DATCP may require such a field test when using a manufactured fertilizer.

AB 25 would also adjust a current law requirement that the label of a soil or plant additive must make a guarantee about the minimum amount of the substances that it contains. The bill would instead allow labels on composted manure products to be substantiated by a typical analysis.

AB 25 is supported by the Wisconsin Farm Bureau Federation and the Dairy Business Association.

A companion bill, SB 24, has support similar to AB 25. SB 24 was recommended for passage by the Senate Committee on Agriculture and Tourism on a vote of 9-0 in May 2023 and was passed by the State Senate on a voice vote in June 2023.

Finally, there is a fiscal note on AB 25. The expected fiscal effect is described by DATCP (the Wisconsin Department of Agriculture, Trade and Consumer Protection) as "minimal." The bill would eliminate a current-law requirement that a one-time permit be obtained for application of composted manure, and applicators currently pay a $25 fee for the license. Producers of the product would still be required to hold a license and to pay a fee associated with that license. Again, DATCP describes any fiscal effect as "minimal."

I conclude by asking for your support for AB 25. Thank you for your attention to this matter.

State of Wisconsin
Governor Tony Evers

Department of Agriculture, Trade and Consumer Protection
Secretary Randy Romanski

Re: Distribution of a fertilizer derived from converting manure into compost and compost byproducts

Chairman Tranel, and members of the Assembly Committee on Agriculture, thank you for the opportunity to provide information about Assembly Bill 25 related to the distribution and labeling of fertilizers and soil or plant additives derived from converting manure into compost and compost byproducts.

Currently in Wisconsin, these fertilizer products can be permitted via a one-time cost of $25 per product but are required to have a minimum grade and guaranteed analysis on the product label. Further, truthfulness of claims on these products have to be backed with scientific evidence to ensure all consumers – from the local farmer, to the local lawn care expert, or gardener – are getting what they pay for. Nationally, states have similar regulations for fertilizer labels in order to facilitate interstate commerce.

Under AB 25, fertilizer and soil or plant additives derived from converting manure into compost or vermicompost and their derivatives would no longer be required to obtain a fertilizer permit, or provide grade and guaranteed analysis on a product label. Further, distributors would be allowed to justify claims about the performance of their products using a newly defined "typical analysis" instead of the scientific justification applicable to other fertilizers. This will create a different set of rules for these product distributors in Wisconsin, and DATCP believes uniformity in labeling is important for all of these products.

Lastly, AB 25 would create a new definition for "beneficial substance". Currently, DATCP relies on terms and definitions that are consistent with those as published within the Association of American Plant Food Control Officials (AAPFCO) Official Publication. Currently, AAPFCO [Official Publication No. 71, 2018] defines "beneficial substance" as, ".. any substance or compound other than primary, secondary, and micro plant nutrients that can be demonstrated by scientific research to be beneficial to one or more species of plants when applied exogenously. [Official 2007]".

A number of companies are currently licensed and permitted to distribute these products (fertilizer and/or soil and plant additives) into or within Wisconsin. These companies have been able to comply with the current licensing and permitting process, label the products with current minimum grade and guaranteed analysis and substantiate the claims that they have made about their products. Current regulations ensure that manufacturers have a level playing field for marketing their products, and consumers have the confidence in knowing that product claims are substantiated with scientific evidence.

Thank you again for allowing DATCP to provide information on AB 25.

3899 Schreiner Road
Spring Green, Wisconsin 53588

March 21, 2023

The Honorable Scot Krug,

I support Assembly Bill 25 as an environmental soil scientist because expanding the current fertilizer laws to include more complex inputs will encourage farmers and researchers to look beyond the current confines of Wisconsin's fertilizer laws.

Under current Wisconsin law, a material must consist of a minimum of 24% soluble plant nutrients before it can be labeled as a fertilizer.[1] Unfortunately, that rule is contrary to the environmental goals of sustainable, organic, and nutrient management programs because it encourages the over-application of highly soluble, highly purified, simple synthetic chemicals. The application of highly soluble synthetic "plant food", which does not consider the balanced conditions of natural soil solution environments, has led to environmental disasters of global proportions.[2,3,4]

Under current Wisconsin law, insoluble soil inputs are not allowed unless they pass the Supplementary Review (ATCP 40.46), which for all intents and purposes, is an onerous and subjective process that appears to protect the status quo.

Changing the law to allow complex inputs of low solubility would support;

- the critical fact that plants obtain nutrients at a more efficient rate when nutrients are limited, than when there is sufficient or excess of nutrients,[5]
- the critical role of microbial acquisition of plant nutrients from insoluble minerals in the plant root rhizosphere,[6]
- trace and ultra-trace element cofactors for enzymes[7] that trigger plant root exudates for microbial colonization of mineral surfaces,[8]
- the release of plant growth regulators by soil microorganisms,[9]
- the fact that plants acquire a substantial portion of their nitrogen requirement by devouring soil microbes,[10]
- the balance of nutrients is more important than absolute quantities,[11]
- the considerable genetic regulation invested by plants to maintain precise levels of nutrients (homeostasis),[12] regardless of soil nutrient concentration,[13]
- soil microbes and plants take up 75 elements,[13,14,15,16] which is not by chance,[17] far exceeding the list of 16 "essential" plant elements.[18]

Sincerely,

Lawrence Mayhew

Lawrence Mayhew

References

[1] Wisconsin Statutes 94.64(3m)(a), Administrative code ATCP 40.12 Fertilizer permits.

[2] P. M. Vitousek *et al.*, *Ecol. Appl.* 7, 737 (1997); R. W. Howarth *et al.*, *Biogeochemistry* 35, 75 (1996); J. N. Galloway *et al.*, *Global Biogeochem. Cycles* 9, 235 (1995).

[3] R. T. Watson, L. G. Meiro Filho, E. Sanhueza, A. Janetos, in Climate Change 1992—The Supplemen- tary Report to the Intergovernmental Panel on Cli- mate Change Scientific Assessment (Cambridge Univ. Press, New York, 1992), pp. 25 – 46.

[4] A. R. Mosier, *Fert. Res.* 37, 191 (1994); A. F. Bouw- man, *Direct Emission of Nitrous Oxide from Agricul- tural Soils* (Report No. 773004004, National Institute of Public Health and Environmental Protection, Bilthoven, the Netherlands, 1994); E. J. Williams, G. L. Hutchinson, F. C. Fehsenfeld, *Global Biogeo- chem. Cycles* 6, 351 (1992); M. J. Eichner, *J. Envi- ron. Qual.* 19, 272 (1990).

[5] Sterner, W.S. and JJ. Elser, 2002. Ecological Stoichiometry: The Biology of Elements from Molecules to the Biosphere. Princeton University Press, Princeton, New Jersey.

[6] Marschner, H. and V. Römheld, 1996. Root-Induced Changes in the Availability of Micronutrients in the Rhizosphere. In: *In*: Y. Waisel, U. Kafkafi and A. Eshel (ed), *Plant Roots: The Hidden Half*, 2nd ed., Marcel Dekker, New York, pp. 557-579.

[7] Burkholz, T. and C. Jacob, 2013. R.H. Kretsinger, V. N. Uvershky, E. A. Permyakov (ed.), Encyclopedia of Metalloproteins, Springer Reference.

[8] Fox, T.R. and Comerford, N.B., 1990. Low-molecular-Weight Acids in Selected Forest Soils of the Southeastern USA. Soil Science Society of America Journal 54(4):1139-1144.

[9] Kapulnik, Y. , 1996. Plant Growth Promotion by Rhizosphere Bacteria. *In*: Y. Waisel, U. Kafkafi and A. Eshel (ed.), *Plant Roots: The Hidden Half*, 2nd ed., Marcel Dekker, New York, pp. 769-770.

[10] White, J.F., et al., 2018. Rhizophagy Cycle: An Oxidative Process in Plants for Nutrient Extraction from Symbiotic Microbes. Microorganisms 6, 95; doi:10.3390/microorganisms6030095

[11] Phelan, P.L., 1997. Soil-Management History and the Role of Plant Mineral Balance as a Determinant of Maize Susceptibility to the European Corn Borer. Entomological Research in Organic Agriculture, 15 (1-4): 25-34.

[12] Kronzucker, H. J., M. W. Szczerba and D. T. Britto, 2003. Cytosolic potassium homeostasis revisited: 42 K-tracer analysis in Hordeum vulgare L. reveals set-point variations in [K^+]. Planta 217: 540–546.

[13] Kaspari, M. and J.S. Powers, 2016. Biogeochemistry and geological ecology: Embracing all twenty-five elements required to build organisms. The American Naturalist 188:S62-S73.

[14] Brooks, R.R., 1972. Biological Methods of Prospecting for Minerals. John Wiley and Sons.

[15] Chapman, H.D., 1966. Diagnostic Criteria for Plants and Soils. University of California, Division of Agricultural Sciences.

[16] Kabata-Pendias, A., 2011. Trace Elements in Soils and Plants, 4th Edition, CRC Press.

[17] Silver, S., 1997. The Bacterial View of the Periodic Table: Specific Functions for all Elements. In: J.F. Banfield and K.H. Nealson (eds.), Geomicrobiology: Interactions Between Microbes and Minerals, Reviews in Minerology, Vol. 35. Mineralogical Society of America, Washington, D.C. pp. 345-360.

[18] AAPFCO Official Publication No. 74 (2021), Association of American Plant Food Control Officials, West Lafayette, Indiana.