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Re: CalRecycle Draft Regulatory Revisions to Title 14 and 27 Regarding Compostable Materials Handling and Transfer/Processing

I would like to call to your attention to a topic that I have devoted considerable personal research: **black soldier fly composting**. Black soldier flies offer a food waste and manure management strategy which is potentially **more efficient at cycling nutrients and converting organic wastes to usable forms of energy** than anaerobic digesting, vermiculture, and other forms of aerobic and anaerobic composting. Projects are under way around the country to develop large-scale waste management systems using black soldier flies [(*Pollock*), (*Profita*)]. Using black soldier flies for waste management and nutrient cycling has similar or better greenhouse gas reduction potential than anaerobic digesting, it requires less capital, and it facilitates distributed solutions which greatly reduce transportation impacts. By **including language in Title 14** concerning black soldier fly larvae (BSFL) we could **facilitate the development of more robust nutrient-cycling strategies in California**.

Background

Black soldier fly larvae (BSFL) ,*Hermetia Illucens*, are **voracious eaters** of organic wastes, including manures [(S. Diener) , (G. L. D. Craig Sheppard), (J. K. D. Craig Sheppard), (Stefan Diener), (Jeffery K. Tomberlin)] which also **inhibit pest flies** (Susan W. Bradley) and **reduce some pathogenic micro-organisms** [(Marilyn C. Erickson), (Soon-Ik Park), (Cecilia Lalander)]. The **products** of processing organic wastes with BSFL **are nutrient-rich stable compost, protein and oil-rich larvae** (appx 42%, 35% respectively)[(J. K. D. Craig Sheppard), (Stefan Diener)]. **Leachates** from wet wastes processed with BSFL **are rich in ammonia and more stable** than leachates from other composting techniques (Green). In addition, the **energy value of biodiesel from larvae fed on manure rivals the energy value of methane captured from anaerobic digestion** [(Longyu Zheng), (Qing Li), *among others*].

Proposed Additions:

17852: Definitions

"Black Soldier Fly Composting" means an activity producing stabilized compost or stabilized compost leachates using the activity of black soldier fly (*hermetia illucens*) larvae. The EA may determine whether an activity is or is not black soldier fly composting. The handling of compostable material prior to and after use as a growth medium is subject to regulation pursuant to this chapter and is not considered black soldier fly composting. Larvae or protein meal derived from black soldier fly composting is subject to testing and approval for animal feed use pursuant to the California Food and Agricultural Code, Division 7, Chapter 6: 14901-15103.

17855: Excluded Activities

Black soldier fly composting is an excluded activity. The handling of compostable material prior to and after its use as a growth medium during the black soldier fly composting process is not an excluded activity and is subject to the requirements of this chapter or the Transfer/Processing Operations and Facilities Regulatory Requirements (Title 14, California Code of Regulations, Division 7, Chapter 3, Article 6.0-6.35), whichever is applicable, as follows:

(A) when the compostable material is active compost or is likely to become active compost, as determined by the EA, the requirements of this chapter apply;

(B) at all other times when it is not being used as a growth medium during black soldier fly composting, the compostable material is subject to the Transfer/Processing Operations and Facilities Regulatory Requirements.

Works Cited

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