AGRICULTURAL WASTE SOLUTIONS,INC.

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October 20, 2017

California Air Resources Board
Dairy and Livestock Subgroup Meeting

Subject: Comment letter for CARB Dairy and Livestock Working Group Subgroup #1

To Whom It May Concern,

Agricultural Waste Solutions, Inc. ("AWS"), headquartered in Westlake Village, California, wishes to express our gratitude to CARB for allowing for the opportunity of comments on the Dairy and Livestock Subgroup #1 Meeting on October 16, 2017 and for inviting comments from stakeholders and the public. AWS works with California dairy farms to produce low carbon transportation fuels and carbon negative co-products that reduce GHG emissions and improve water quality while creating new profit centers from manure and other ag resources.

Please see below our comments from the October 16, 2017 Dairy and Livestock Subgroup #1 Meeting (Fostering Markets for Non-Digester Projects)

- The presentations and comments from the panel were excellent, and most of them appear to acknowledge that most of the methane generated from manure management practices is from the lagoons, settling basins, transportation/storage, composting, and land application. Approximately 70% of the average methane emissions are from the anaerobic lagoons. If we are able to keep the volatile solids from ever reaching the lagoon, using highly effective solids separation techniques to separate the solids when the manure is fresh and before it has had the opportunity to anaerobically decay, we would achieve one of the major methane reduction objectives. If we then thermochemically decompose the separated solids in a CA permitted pyrolysis device to produce a nutrient-rich carbon sequestration biochar, we will have eliminated the most significant methane emissions from standard manure management practices while producing a carbon negative soil amendment in return.

- We believe that pyrolysis/gasification as an alternative technology should be accelerated in timing as a focus of this group due to its significant potential to reduce methane emissions from CA dairies. We also need CARB to accelerate the measurement techniques and evaluation metrics to evaluate carbon credits and methane reductions from the pyrolysis/gasification of manure. In the California Air Resources Board Quanitifcation Method for CDFA's AMMP and the GHG Calculator Tool, the inclusion of pyrolysis metrics would allow for that specific technology to be an eligible project type. Pyrolysis can also be utilized in conjunction with AD systems to thermochemically decompose the digestate, which contains over 50% of the original carbon from the raw manure, in order to produce clean energy and/or a nutrient-rich biochar from the digestate.

Sincerely,

Stephen McCorkle, CEO
Agricultural Waste Solutions, Inc.