

Current US algae biorefineries, projects and perspectives

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Large challenges remain to take advantage of algae (cyanobacteria, microalgae, and macroalgae) as a bioenergy, biofuels, and bioproducts crop. Traditional applications in the nutraceutical and food industry, have shown more promise. New efforts in combining a biorefinery approach with wastewater treatment, anaerobic digestion, and biomass utilization are becoming more popular and successful towards providing a middle ground for implementation of algae cultivation systems. An overview will be provided of the growth in fundamental and applied algae research in recent years, which will include a review of the scientific literature and key programs in bioenergy in the US leading to a resurgence and interest in algae. With this presentation, a discussion will ensue on the challenges being tackled to make the algae biorefinery a viable industry, including progress and opportunities available to develop algae as a key crop for the bioenergy and the bioproducts industries.