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“As the world’s population grows, increased agricultural output will be necessary to meet demands. Issues of land and water scarcity alongside concerns about climate change and ecosystem degradation require increased emphasis on sustainability in agriculture.”

-From the report

November 2012

59 pages

155 footnotes

23 tables, charts & figures

Latest Agricultural Technology Innovation

Companies and breakthroughs most likely to help the world produce more food with less

Dwindling water, farmland and fossil-based fertilizers are making it increasingly difficult to feed people today, let alone those expected in the future.

Select companies are poised to reinvigorate large scale agriculture with cleantech innovations that help expand yields, increase efficiencies, reduce waste and address concerns about toxicity, safety and the environment.

How do established organizations manage risk around the disruptive change of breakthrough new agricultural innovation? Which new agriculture companies stand the best chances of success? Why?

In its report on new agricultural cleantech, Kachan offers definitions and identifies drivers, then critically examines companies

with important emerging technologies in bio-based fertilizers, pesticides and fungicides, microirrigation, precision agriculture, aquaculture, vertical farming, waste management and more.

The report concludes with recommendations for investors, large corporations, policy makers and entrepreneurs.

REPORT INCLUDES

- Definition of agricultural cleantech, and relevance to profiled companies
- Drivers of new agricultural tech innovation
- Profiles of 57 companies, many with their technology illustrated
- Charts showing historical ag tech investment and patent filing data

ALSO FEATURES

- Taxonomy of clean agricultural technology
- Detail of emerging sectors like aquaculture and sustainable forestry
- Findings based on interviews with dozens of market insiders
- Recommendations for corporations, entrepreneurs, policy makers and more

ESSENTIAL FOR

- Companies across the agricultural value chain, from small technology companies to large multinationals
- Investors seeking disruptive innovators
- Service providers seeking promising agricultural technology companies as clients
- Governments
- And others

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“Venture capitalists have expressed interest in the area of agricultural cleantech, and increased investment is expected as our understanding of what truly constitutes sustainable agriculture evolves.”

ABOUT THE AUTHOR »



Shannon Payne has been studying renewable energy and alternative energy systems since 2007. She holds a BSc in mechanical engineering from the University of Calgary and will shortly complete her MEng in clean energy engineering at the University of British Columbia. Shannon gained exposure to non-traditional cleantech innovations through several years of participation in the ASME Earth Saver Challenge and participation in multinational cleantech entrepreneurship courses in China. Prior, she served on a simulation and modeling team at ABB Corporate Research in Switzerland.

BASED ON INTERVIEWS WITH

- 20+ agricultural cleantech vendors
- 4 investment firms and portfolio managers
- 8 research entities including the USDA, Sustainable Forestry Initiative and UNFAO

WORKSHOP OPTION

Seek more detail? Have a team you wish to share this research with? An interactive workshop presenting the findings of this report is available, onsite in person or via Internet presentation.

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