



TECHNOLOGY AND INNOVATION MARKETPLACE

Profiles of technologies showcased by exhibitors during the RDFS Forum

Remote Sensing in Stored Food and Feed Commodities in Tropical Climates

Data on relative humidity (RH) and carbon dioxide (CO²) levels in modified atmosphere storage enable long-term storage of food and feed commodities in a sustainable way and at optimal quality.

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Overview

Moisture, infestation, and oxidation are the main drivers for food and feed deterioration in tropical climates. The ability to monitor data on moisture and naturally generated CO², make modified atmosphere storage predictable and reliable, thus enabling insurance companies to ensure the inventory (Figure 1).



Figure 1. Green coffee quality maintained in GrainPro SuperGrainbag™.

Summary

Food security means that basic food is available at any given time at an affordable price for consumers, while farmers are ensured of stable market prices. Economically, that is possible if a country is able to maintain a substantial grain reserve, which serves as a buffer in times of fluctuations in world market prices, calamities, or emergencies. Keeping such a reserve is costly and where technology can play a crucial role. Grain stored under modified atmosphere conditions can be stored for years in a sustainable way (Figure 2). GrainPro's remote sensing technology enables close monitoring of the inventory and the quality of the stocks, reduces losses substantially, and makes the stocks predictable and insurable. These conditions enable warehouse owners to raise funding for this inventory.



Figure 2. Food ready to be stored in GrainPro Cocoon™. The GrainPro Cocoon is a flood-protected and Ultra-Hermetic storage solution designed to safely store dry agricultural commodities without the need for chemicals.

Keywords: remote sensing, grain storage, food security

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Tom de Bruin joined GrainPro, Inc. in 2002 as vice president of Marketing and Sales. In 2007, he opened the manufacturing plant in Subic Bay where he assumed the role of President and CEO of GrainPro Philippines, a subsidiary of GrainPro, Inc. Born in Rotterdam, Netherlands, Tom received his master's degree in Hebrew and Aramaic languages and literature, Jewish history, and philosophy at Leyden State University, Netherlands. To pursue post-graduate studies, he relocated to Israel and continued at the Hebrew University in Jerusalem. He further studied psychotherapy, human resources management, and international marketing.

For the last 25 years, Tom has been actively involved in the marketing and sales of relevant drying and storage solutions that use modified atmosphere. He has an extensive experience in building markets in the developing world. During his time at GrainPro, Inc., the company has established itself as a world leader in the field.

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