Solutions for bio-based applications

Presented by Casterra's CEO, Assaf Dotan

May 2019

Mission & Who We Are

Our mission: Providing stable supply for the growing market demand for castor oil

- A leading company supplying an **integrated ag-solution**, including proprietary castor seed varieties supported by novel agro-technical know-how and proprietary mechanical harvesting to address global demand for stable castor oil supply
- Providing a fully modernized crop, aiming to secure the steady supply of castor beans to industrial oil producers and decrease price volatility
- Leveraging Evogene's plant genomic capabilities - the Computational Predictive Biology (CPB) platform
- Currently active mainly in Latin America, with strong business partners

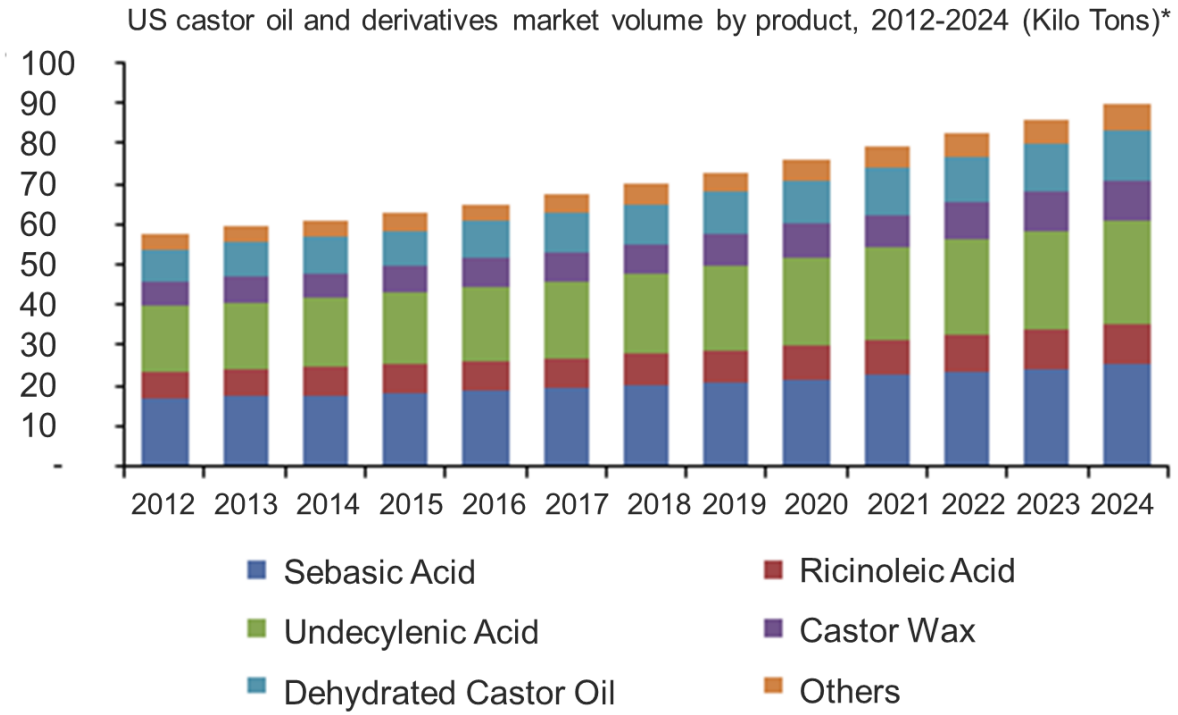
The Castor Oil Industrial Market

Castor oil is “oil of choice” for many applications in cosmetics, pharma, electronics, aerospace and other industries

The **Global** castor oil & derivatives

Mechanized market is expected to reach

USD 3.50 billion by 2024*



*Grand View Research, August 2016 (updated)

Castor Oil Value Chain and Uses

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Superior seed development

Seed production

Castor growth protocol

Mechanical Harvest

Full value-chain solution

Castor Grain Crusher

Oil

- Industrial application Derivatives (~85%**)

'Cake'*

- Fertilizer and Nematodes suppressor (~15%**)

*Castor cake is nitrogen-rich organic fertilizer, obtained as solid residue from treatment of seeds for castor oil

**Percentage of value

The Challenge

"Most of the global castor supply is from India where castor is grown in **traditional** methods & the **harvesting** is done **manually**, creating an **unstable supply** of castor oil and leading to **high price volatility** in the market"*

Common castor family size
Tall shrub, hand-picked

- Traditional cultivation
- Low yield (0.6 MT/Ha.)
- Manual harvest

Current practice

*Source: Oil World, www.oilworld.de

Our Solution

Casterra has established a **unique integrated ag-solution**, including proprietary castor seed varieties supported by novel agro-technical & harvesting know-how, addressing the global demand for **stable castor oil supply**

Common castor family size
Tall shrub, hand-picked

- Traditional cultivation
- Low yield (0.6 MT/Ha.)
- Manual harvest

Current practice

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2007-2019

Modern row-crop cultivation

- Compact plants, high density
- High oil content
- Adapted to commercial mechanical harvest

Casterra solution

Our Products

Adapting Casterra's varieties & growth protocols per **target area** characteristics in a **timely** and **cost effective** manner

1. Leveraging Evogene's technological capabilities to accelerate our breeding program in developing unique seed varieties
2. Casterra's agro-technical know-how for creating seed growth protocols & harvesting together with partners

Our integrated ag-solution

Seed Variety

- ✓ Concentrated ripening
- ✓ Compact plants
- ✓ Capsule shattering
- ✓ Earliness
- ✓ Higher Yield
- ✓ Higher Germination rate

Growth Protocol

- ✓ Mechanical harvesting
- ✓ Herbicide solution
- ✓ Disease control
- ✓ Crop rotation
- ✓ Rain-fed / Irrigated crop
- ✓ Dehulling

Product Pipeline & Portfolio

Israel - E1-E2

Target market – D1-D2

Research / Pre-Breeding → Early screening → Yield trials & Growth Protocol → Pre-commercial & mechanical Harvesting → Commercial

Portfolio

1st generation: CR-712	Compact architecture, adapted to mechanical harvest, uniformity, high germination rate	**CR-712**
2nd generation: CR-103, CR-106	Improved yield, compact architecture, plant type variable	**CR-103 CR- 106**

Pipeline & portfolio

1st generation: CR -712 Gold	Adaptable to mechanical harvest, Concentrated ripening, Uniformity, High grade oil %	**CR-712G**
2nd generation: CR -103 Gold, CST-106 Gold	Improved yield, High germination rate, Earliness	**CR 103G CR 106G**
3rd generation: CR-128 Gold	Improved yield, Concentrated ripening, Uniformity, Droughty tolerance	**CR-128G**
4th generation: CR Hybrids	Synergetic & affordable hybrids	**CR-1180**

CR-712 - 2018 Results

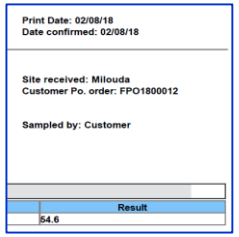
Germination rate & uniformity

CR-712 - 98%

High grade Oil content

CR-712 - 54.6%

(industry average 45%)



Lab. Test

Ricinoleic acid (C18-1-OH)

CR-712 - 87.02%

(industry average <85%)

Lab. Test

Technological Partner - Mechanical Harvest

Completed two consecutive years of semi-commercial harvesting trials

(with the combination of the harvester and casterra's proprietary castor varieties and growth protocols)

Initial results
~50% yield loss

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2007-2019

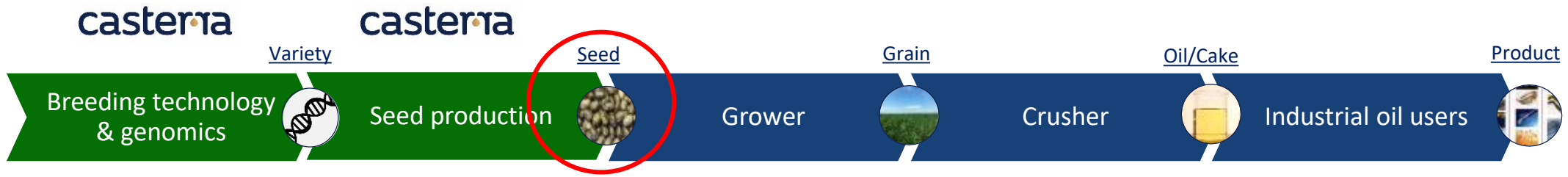
Current results
~5% yield loss

currently conducting commercial harvesting trials in target markets with commercial partners.

Business Models and Technological Position

Revenue sharing with oil producers

Seed sales - Full solution (inc. growth protocol & mechanical harvest)



Management Team

Ofer Haviv
Chairman of the Board

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Ofer Haviv holds the position of Evogene's President and CEO as of late 2004. Prior to that he held the positions of company COO and CFO from 2002 to 2004 and was involved in Evogene's spin-off from Compugen in 2002. At Compugen, he held the position of Director of Finance and Treasurer of Compugen (NASDAQ: CGEN) for four years, during which time the company completed two private placements and an IPO on NASDAQ

Education: Mr. Haviv holds a B.A. degree in Economics and Accounting from Faculty of Management, Tel Aviv University and is a Certified Public Accountant in Israel.

Assaf Dotan
CEO

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20 years experience in agribusiness, mainly in agro chemicals

Assaf is a 15 years veteran in ADAMA agricultural solutions in various R&D, BD, M&S and Commercial managerial positions mainly in Latin America.
Establish the global Crop Management team Led ADAMA corporate global marketing strategy & a global re-branding process.

Agriculture specialist in Fortissimo capital (Private equity)

Advisory board member in various agri. Start-ups

Education: Mr. Dotan holds MBA from the Kellog business school, Northwestern university and a B.Sc. In Agronomy, Hebrew University of Jerusalem.

Michi Brog, PhD.
CTO

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10 years of experience in plant genetics & genomics

Michi brings over 10 years of experience and expertise in plant genetics and genomics in vegetables and field crops with a strong background in plant breeding and quantitative trait analysis. Michi previously held the position of a crop research leader at Evogene Ltd. where he focused on advancing and optimizing potential GM products.

Education: Mr. Brog holds PhD. In Genetics and Plant Breeding from the Hebrew University of Jerusalem

Ronen Sander
COO

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25 years experience in agribusiness with vast knowledge in Castor bean

Ronen lead the Castor bean seeds production & was the director of mechanical harvest solution development for more that 12 years (Kaiima, Volcani, ELZ) Managed the operations of cash crops as: Wheat, Corn, Rice & Canola. Growing protocols, agro-technical support and post harvest.

Renewable energy private consultant – from project analysis to business plans.

Managing director in R&D initiative startup (Germany)

Education: Mr. Sander holds M.Sc. In Agricultural economist from the University of Aberdeen and a Crop science degree from Rupin

THANK YOU