We apply our science to help solve some of the world’s greatest challenges in:

**FOOD**

**ENERGY**

**PROTECTION**

- FEEDING THE WORLD
- REDUCING OUR DEPENDENCE ON FOSSIL FUELS
- KEEPING PEOPLE AND THE ENVIRONMENT SAFE

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Aiming our R&D engine at these big challenges
$1.7 billion DuPont Actual R&D Spend in 2010

- FEEDING THE WORLD: 61%
- REDUCING OUR DEPENDENCE ON FOSSIL FUELS: 11%
- KEEPING PEOPLE AND THE ENVIRONMENT SAFE: 12%
- Chemicals & Materials: 11%
- Electronics: 5%

~85% of R&D Spend Targeting Food, Energy, Protection
Food Science and Application

- State-of-the-art ingredient knowledge
- Industrial know-how on all food products
- Worldwide network of regional food innovation centres
- Pilot plant facilities for development of robust food solutions
- Analytical set-up for taste & texture

- Bakery
- Beverage
- Confectionery & bars
- Culinary
- Dairy
- Dietary supplements
- Frozen desserts
- Fruit
- Meat, poultry & seafood
- Oils & fats
- Special nutrition
- Physical food science
- Sensory analysis
- Analytical chemistry
Food Application Centres

USA
Kansas
St Louis

Mexico
Mexico City

Brazil
São Paulo
Esteio

Denmark
Brabrand/Aarhus

France
Dangé St. Romain

China
Shanghai

South Africa
Cape Town

Singapore
Singapore

Australia
Sydney
Protein Solutions (Solae): Soy Protein Process & Markets

**MARKETS**

- **Textured and Functional Concentrates**
  - Processed Meat
  - Meat-free
  - Animal Feed

- **Soy Isolates**
  - Processed Meat
  - Beverages & Bars
  - Infant Formula
  - Clinical Nutrition

- **Lecithins**
  - Food Emulsifiers
  - Industrial Applications

- **Oil Fraction**
  - Margarines
  - Shortenings
  - Cooking Oils
Our Heritage of Market-led Soy Protein Innovation

Ready-to-drink beverages
Protein Snacks & Energy bars
Emulsified Meats
Meat Analogs
Sports Nutrition
Desserts & Confections
Processed Beef & Poultry
Combination Proteins
Infant Formula
Processed Beef & Poultry

Unique Nutritional Value
More Affordable Protein
More Sustainable Protein
Global Food Security

Soy an important tool in meeting future dietary needs of a growing population
Important Trends in Global Populations

• The growth rates for Africa and Asia are significantly greater than other regions.

• Urban populations will dramatically expand
• While rural populations will decrease
Meat Consumption Growth

Billion People

- World Population
- World Meat Consumption

Million Tonnes

Source: UN, FAO, IFIF
### Soy: A Unique Nutritional Profile

<table>
<thead>
<tr>
<th>Protein Source</th>
<th>PDCAAS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solae™ Isolated Soy Protein</td>
<td>100</td>
</tr>
<tr>
<td>Milk (Casein)</td>
<td>100</td>
</tr>
<tr>
<td>Egg White</td>
<td>100</td>
</tr>
<tr>
<td>Beef</td>
<td>92</td>
</tr>
<tr>
<td>Pea Flour</td>
<td>69</td>
</tr>
<tr>
<td>Kidney Beans</td>
<td>68</td>
</tr>
<tr>
<td>Pinto Beans</td>
<td>63</td>
</tr>
<tr>
<td>Peanut Meal</td>
<td>52</td>
</tr>
<tr>
<td>Rice</td>
<td>45</td>
</tr>
<tr>
<td>Whole Wheat</td>
<td>40</td>
</tr>
</tbody>
</table>

- High quality protein – w/level of all essential amino acids needed for normal development
- Low in fat and saturated fat
- Zero cholesterol
- No lactose
- Ideal for vegetarian alternatives
- The only protein with an approved US FDA Health Claim

Source: Protein Digestibility-Corrected Amino Acid Score (PDCAAS). A score of 100 meets 100% of the reference amino acid requirements.

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Increasing demand for traditional protein sources – meat, milk and egg – will strain supply, leading to significantly higher prices by 2021.

With less than 5% of total soy production today being used in human food

- Projections indicate
  - continued stable pricing
  - Ample supply for soy protein to provide a stable, economic alternative.

Source: OECD-FAO Agricultural Outlook (2009-2011 100 = Index) Published July 2012
Food Value Chain Development

As the population in a country grows and the country develops, the food value chain becomes more complex.

Mature Value Chain supplying consumers across a range of consumer markets in urban and rural areas

- Ongoing N&H Business supplying Processors in the Local Market

Population grows, becomes more urban, food value chain becomes more complex

- Food Value Chain Capacity Development

Rural economy, small holder farmers

- Production Ag Training, Rural Market support

Collaborating Partners to Engage
- Local Processors
- Current Customers
- Universities
- Government Organizations US/AID, etc.
- NGO/PVO
From Good Nutrition to Greater Productivity and Beyond……

Source: (http://www.unicef.org/sowc98/silent.htm)
The Food Value Chain

**Crop Production**

**Harvest, Storage and Transport**

**Food Processing and Preservation**

**Food Product Distribution**

**On-site Storage, Preparation, Consumption**

Collaboration
Global Food Security

Corporate Goals
Global Food Security Index

Together, We can feed the world!
DuPont Food Security Goals

- **By the end of 2020, DuPont will help the world meet the challenge of global food security by:**

  - **Innovating to Feed the World.** We will commit $10 billion to R&D and 4,000 new products will be introduced. The work will center on producing more food, enhancing nutrition, food and agriculture sustainability and safety, boosting availability and shelf life, and reducing waste.

  - **Engaging and Educating Youth.** We will facilitate 2 million engagements of young people around the world in educational opportunities.

  - **Improving Rural Communities.** We will work to improve the livelihoods of at least 3 million farmers and their rural communities through targeted collaborations and investments that strengthen agricultural systems and make food more available, nutritious and culturally appropriate. This is in addition to the work already being done to enhance the lives of hundreds of millions of farmers through DuPont’s normal business practices.
The Economist Intelligence Unit was commissioned by DuPont to research and produce the innovative Global Food Security Index.

Defining food security

- Food security exists when people at all times have physical, social and economic access to sufficient and nutritious food that meets their dietary needs for a healthy and active life.

The Global Food Security Index:

- ranks 105 countries
- according to their relative levels of food security
- using 25 indicators divided into three categories: Affordability and Financial Access; Availability; Quality and Safety.
The EIU Global Food Security Index is a unique tool for promoting collaboration, generating insights and stimulating action to feed a growing population.

Who should use the index:
- Academics
- Policy Makers
- Business & Industry
- NGOs

What will it help us do:
- Conduct timely research and planning
- Make informed decisions
- Set realistic goals
- Effectively address the causes of food insecurity
- Catalyze action on pressing issues
- Unlock potential for collaborative, localized solutions
What are we measuring?

This index is the first to examine food security comprehensively across the three internationally established dimensions of food security:

- **Availability,**
- **Affordability,** and
- **Utilisation** – called “Quality and Safety” in the index

- **It looks beyond hunger** to the underlying factors that influence the ability of consumers to access sufficient amounts of safe, high-quality and affordable food.

- **It employs a quarterly adjustment factor for food price fluctuations** to examine the risks countries face throughout the year.

- **It includes several unique qualitative indicators,** developed and scored by Economist Intelligence Unit analysts to capture drivers of food security not currently measured in any international dataset.

- **It displays the results on an interactive website** that allows deeper dives into country conditions and the relationships between food security drivers.
Visit www.foodsecurityindex.eiu.com

Tools: Website

- Explore drivers of food security
- Compare country scores
- Find country profiles
- Perform scenario analysis
- Watch the peer panel video
- Download the Findings and Methodology paper and deep dive Excel model
Visit www.foodsecurityindex.eiu.com

Perform scenario analysis by adjusting Brazil’s food consumption score.
Overall results

OVERALL SCORE

Score 0-100, 100=best environment
- Green: Score 68.8 to 89.5
- Yellow: Score 51.1 to 68.7
- Orange: Score 35.2 to 51.0
- Red: Score 18.4 to 35.1
Together, We can change the world!!

Thank You