

New, Non-Food Uses of Soybean Products

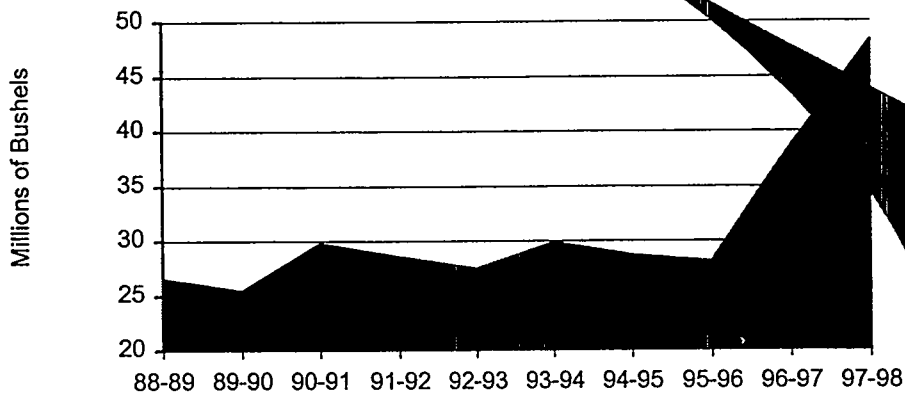
Blaine Rhodes
Omni Tech International, Ltd.
Midland, Michigan, USA

Presented at
Exploring Low Emission Diesel Engine Oils
Scottsdale, Arizona
January 30 – February 1, 2000

*Soy.
A natural
renewable
feedstock
for industry.*



Inedible Soybean Oil Domestic Consumption



Source: US Commerce Department. Nov-Oct 12 Month Trailing Total

THE SOYBEAN CHECKOFF PROGRAM

- Established by Congress in 1991
- 0.5% of soybean market price collected from 600,000 soybean farmers
- MISSION: Create an environment within which U. S. soybean producers can maximize profits

UNITED SOYBEAN BOARD MAJOR PROGRAM AREAS

- PRODUCTION
- INTERNATIONAL
- DOMESTIC MARKETING
- NEW USES

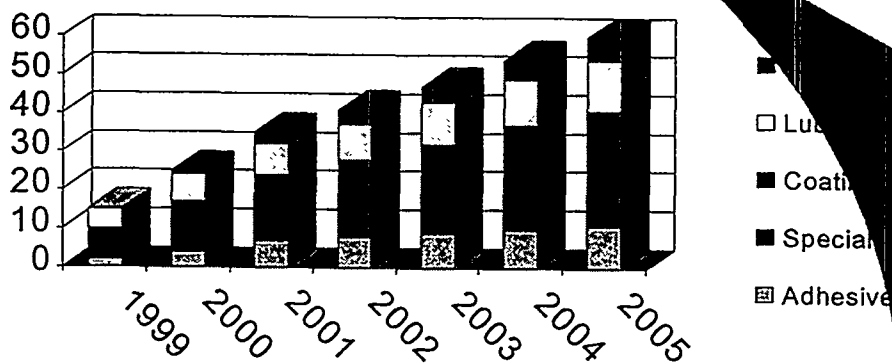
New Uses Committee Mission

Create new soy demand through the
discovery, development and introduction of
new soy-based products and applications

Program Goals And Objectives

New usage demand – (millions of bushels)

Cumulative New Product and Application Introduction Goals



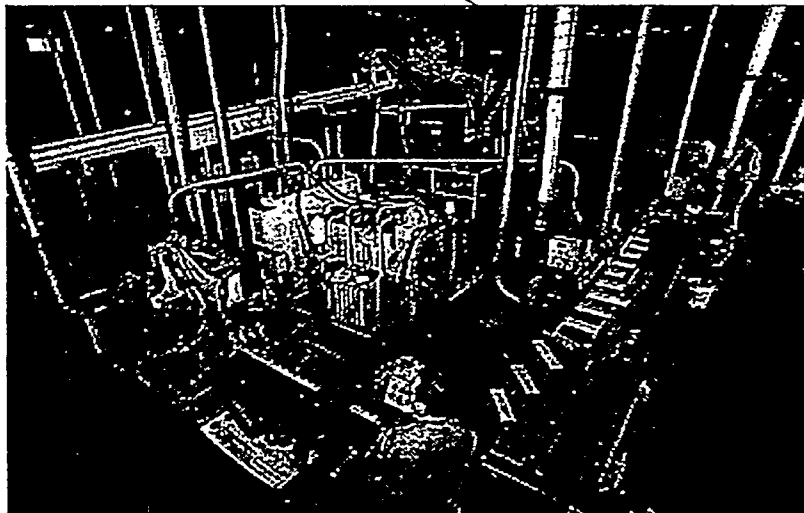
Future Product Candidates Coatings

- **Interior primer paint – ICI / Glidden**
 - Introduction planned for March 2000
- **Paint ingredients**
 - University of Missouri/Rolla
 - University of Southern Mississippi
 - Michigan Molecular Institute

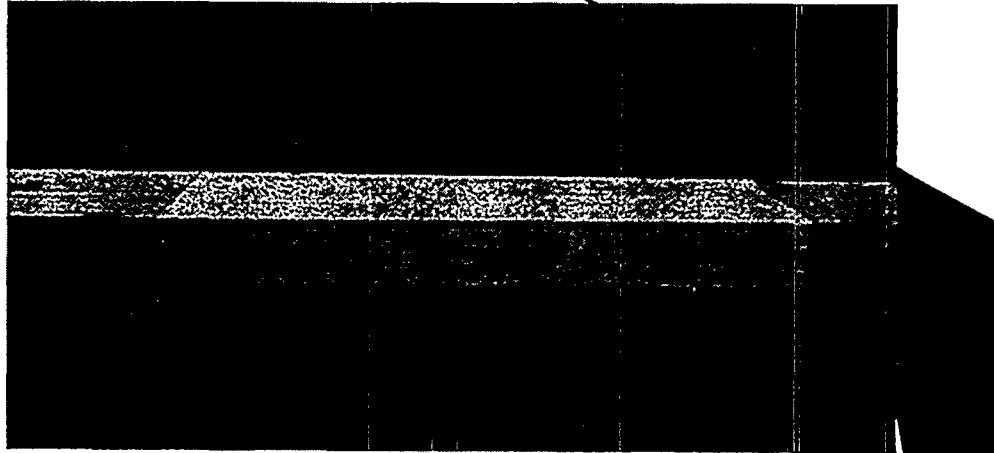
Future Product Candidates Printing Inks

- **Faster drying printing inks** - Iowa State
- **UV-cured Inks** - Lehigh University - Radco
- **Textile printing inks** - Kansas State

Market Segment- Adhesives



Finger Jointed 2x4

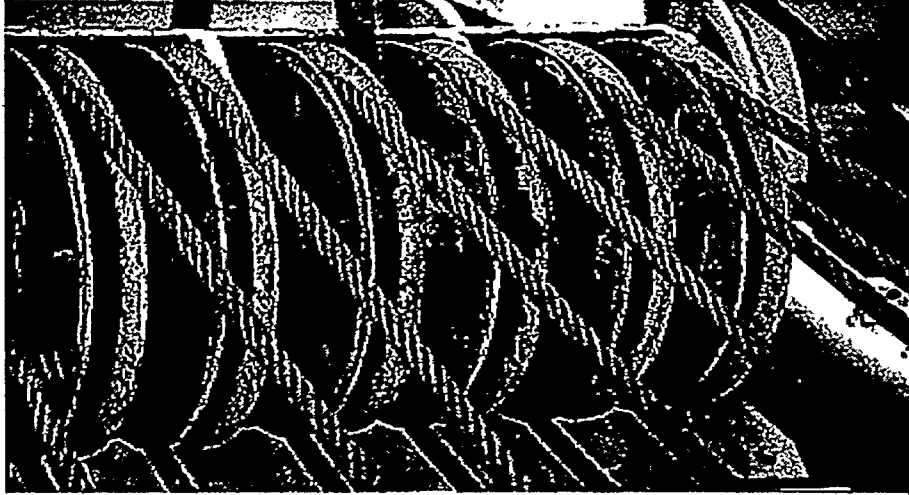


Lubricants Market Segment

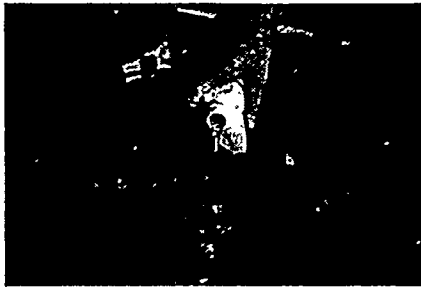
AREAS OF MAJOR EMPHASIS

- Total loss lubricants
- Hydraulic fluids
- Crankcase lubricants
- Working fluids

Soy Lube For Steel Cables

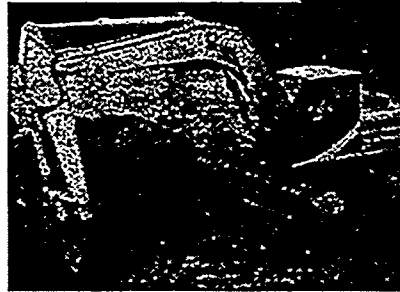


Lubricants

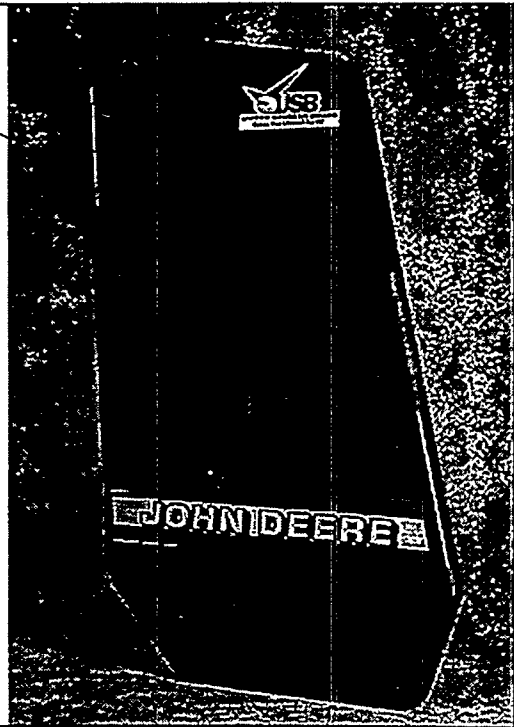


- High lubricity
- High viscosity index
- Low evaporation loss
- High flash point

- Chemical modification
- Genetic modification
- Additive use



MARKET SEGMENT- Plastics



MARKET SEGMENT- Specialty



*Soy.
A natural,
renewable
feedstock for
industry.*

