Did you do your homework?

1. Yes
2. No
3. What homework?
Making Cents
OF GREEN INDUSTRY ECONOMICS

Production
- MINING
- OIL WELLS
- FORESTRY
- EXTRACTIVE & MANUFACTURING

Nursery & Greenhouse Firms
- DISTRIBUTION & LANDSCAPE FIRM

SOMES
- Irrigation materials
- Wrappings, Containers
- Packaging materials
- Labels
- Irrigation materials

PLASTICS MANUFACTURING
- PETROLEUM PRODUCTS

FERTILIZER; PESTICIDES
- CHEMICAL PLANTS

METAL WORKING
- TOOLS & MACHINERY

Printing Materials
- PAPER WELLS

INSTITUTIONAL
- RETAILING
- DISTRIBUTION & LANDSCAPE FIRM

FUNCTIONS
- Marketing
- Distribution
- Retail
- Wholesale
- Transportation
- Installation
- Maintenance
- Storage
- Financing
- Information
- Export

Marketing
- Retail
- Wholesale
- Distribution
- Retail centers
- Wholesale centers
- Mail order & internet sales

Shipyards
- Shipyards

Nursery & Greenhouse Firms
- Production
- Marketing
- Consumption
- End Consumer

Besides Mexico, Canada, Guatemala, Australia, Israel, England, Costa Rica, Hawaii, Philippines, Japan, China, Korea

Trade Agreements
- Trade Barriers & Import Restrictions
- APHIS/PPQ
- Environmental Protection
- Pesticide and other chemical regulations
What sector do you represent?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>33%</td>
<td>Growers</td>
</tr>
<tr>
<td>4%</td>
<td>Importers</td>
</tr>
<tr>
<td>4%</td>
<td>Wholesalers</td>
</tr>
<tr>
<td>11%</td>
<td>Retailers</td>
</tr>
<tr>
<td>7%</td>
<td>Media</td>
</tr>
<tr>
<td>7%</td>
<td>Associations</td>
</tr>
<tr>
<td>15%</td>
<td>Academia</td>
</tr>
<tr>
<td>20%</td>
<td>Other</td>
</tr>
</tbody>
</table>

Economic Influence of the Green Industry

- Nursery & Greenhouse Production
- Lawn & Garden Equipment Manufacturers
- Wholesale & Retail Trade
- Landscaping Services Sector
- Commodity and Service Exports/Imports
- Rest of Local Economy
- Rest of United States and World Economy
What is the economic contribution of the green industry to the U.S. economy?

1. Dunno, but it’s big!
2. \geq \$148 billion
3. \$16,250,300,000
4. 2+ million jobs
5. Who cares?
Total Economic Impacts of the U.S. Green Industry, 2004*

<table>
<thead>
<tr>
<th>Impact Measure</th>
<th>Green Industry Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output ($Bn)</td>
<td>147.8</td>
</tr>
<tr>
<td>Employment (jobs)</td>
<td>1,964,339</td>
</tr>
<tr>
<td>Value Added ($Bn)</td>
<td>95.1</td>
</tr>
<tr>
<td>Labor Income ($Bn)</td>
<td>64.3</td>
</tr>
<tr>
<td>Indirect Business Taxes ($Bn)</td>
<td>6.9</td>
</tr>
</tbody>
</table>

*2002 values expressed in 2004 dollars (GDP Implicit Price Deflator, U.S. Department of Commerce)

Which of the following is NOT an industry issue?

1. Immigration reform
2. Health care & insurance
3. Estate tax repeal
4. Water legislation
5. Price of beer
6. Sustainability
“supplement existing green building and landscape guidelines”
Are we in economic recession???

1. Yes
2. No

- Yes: 51%
- No: 49%

---

**Inflation Adjusted Monthly CRUDE OIL PRICES**
(1946-Present) In April 2008 Dollars
© www.InflationData.com
Updated 5/12/2008

- May 2008 Monthly Ave. Oil Price $117.40
- July 2006 Monthly Ave. Oil Price $69.97 in April 2008 Dollars
- Inflation Adjusted Oil Price
- Nominal Monthly Ave. Oil Price
- Inflation Adjusted Monthly Average Oil Price

Source of Data:
- Oil Prices: www.oilprice.com
- CPI-U Inflation Index: www.bls.gov
Core inflation holding steady


(just don’t eat or drive!)

Source: BLS
Big hit with minimum wage increase

Percent Increases in the Real Minimum Wage Over 2-Year Periods, 1958 - 2008

Source: BLS

Weak Dollar, but Rebounding

U.S. Dollar Index (Broad)
January 1 to June 13, 2008

- Increases P of imported inputs

Source: Federal Reserve
Erratic Stock Market

Wealth effects on consumption???
Impacts on consumer confidence???
Retail Sales Showing Resilience

Percent Change in Retail and Food Services Sales
(Estimates adjusted for seasonal variation and holiday and trading-day differences, but not for price changes)

How many recessions have we had since 1948 (last 60 years)?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Number of Recessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>21%</td>
<td>1</td>
</tr>
<tr>
<td>32%</td>
<td>2</td>
</tr>
<tr>
<td>32%</td>
<td>4</td>
</tr>
<tr>
<td>15%</td>
<td>10</td>
</tr>
<tr>
<td>0%</td>
<td>25</td>
</tr>
</tbody>
</table>
A necessary evil???

Naturally, no politician acknowledges the self-evident implication: that recessions, though unwanted and hurtful to many, are not just inevitable; sometimes they’re also necessary to prevent the larger and longer-lasting harm that would result from resurgent inflation... They treat every potential recession as a policy failure when it is often simply part of the business cycle.

– Robert Samuelson, Washington Post

What is the #1 consumer megatrend?

1. Container gardening
2. Outdoor living
3. Recycling plastic pots
4. Eating organically

![Pie chart showing consumer megatrends]
Top 10 Mega Trends in Last 5 Years

#10 D(S)IFM
#9 Gardening with Nature
#8 Branded & Supersized
#7 Small Space Gardening
#6 Annuals Come Back
#5 Water
#4 Color, Color, Color
#3 Container Gardening
#2 Decorating the Outdoors

#1 Outdoor Living

Source: Garden Media Group

Mega Trend #1: Outdoor Living

- Homeowners are now viewing their inside and outside space as a whole.

- Backyards and patios now serve as playgrounds, living rooms, home offices and kitchens.

Source: Garden Media Group
Have you (or someone you know) recently installed an outdoor living area?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>1. Yep</td>
</tr>
<tr>
<td>40%</td>
<td>2. Nope</td>
</tr>
</tbody>
</table>

Mega Trend #1: Outdoor Living

“The demand for outdoor living goods and services has only just begun to blossom.”

2005 Survey of Luxury Consumers
Unity Marketing

Source: Garden Media Group
Mega Trend #1: Outdoor Living

- Outdoor living products and services, reached $62.5 billion in 2004
- Plants accounted for only 31% of the total market.

Source: Garden Media Group

Outdoor Living #1 Trend

- 14% of luxury home consumers purchased garden, outdoor, lawn and patio products in 2006
- Down slightly from 16 percent in 2005
- But they spent more on garden and outdoor items in 2006

The Luxury Report, 2007: The Ultimate Guide to the Luxury Consumer Market
08/01/07 ©UNITY MARKETING, 2007
Luxury Outdoor Spending

- Average spending up **23.5%**, from $7,992 in 2005 to $9,874 in 2006
- Super-affluents spent $12,868,
- Over 40+ households $10,022
- Young affluents spent $9,839
- Men spent 19.9% more than women
  - $11,045 for men
  - $9,212 for women

The Luxury Report, 2007

Luxury Outdoor Purchases

- Furniture for decks and outdoor living is #1 with 42% buying furniture
- 26% bought BBQ grills
- 21% purchased decorative pots & planters, and lighting accents

The Luxury Report, 2007

Leaf Bed Mahogany Wicker from Alfresco Home
Mega Trend #1: Outdoor Living

40% of the Luxury Market said this year they plan to invest in a major outdoor living project.

Some 45% spent on average $1,000 on luxury garden “enhancements” for their yard.

Look for plasma screen televisions, Viking grills, and outdoor fireplaces complete with art over the mantel.

Source: Garden Media Group

Opportunities with Upscale Market

- Sell ‘em Service Gardening
  - D(S)IFM Do Some of It For Me

- 62% do not own luxury patio furniture

- 72% do not own outdoor shelters, pergolas, gazebos, awnings, etc.

- 78% do not have outdoor water features

Campania Faccia Planter
Outdoor Living Report
2006 StandPoint

- Need help and guidance with the “vision”
- Consumers want style, selection and quality at affordable prices
- Homeowners are overwhelmed with the “not so small task” of creating an outdoor living space or garden
- Want in-store displays where they can “interact” with the product

Source: Garden Media Group

Mega Trend #1: Outdoor Living

It’s not about gardening.
It’s not about the Latin name or even a name at all.
It’s about bringing the inside out.
It’s about living.
It’s all about the verbs . . . relaxing, entertaining, decorating, cooking, reading, working, exercising or just sitting.

Source: Garden Media Group
Which of the following is not a part of gardening for the greater good?

1. Gardening for self gratification
2. Concern and heightened awareness for the environment
3. Cradle-to-cradle lifestyles
4. Reduce – reuse – recycle
Gardening for the Greater Good

- The “Networked Self” is much more ecologically aware
- See ourselves as “instrumental parts” of a much greater picture
- Feel “personally responsible to understand and engage with the whole”

Actress Daryl Hannah, Ed Begley Jr., & Will Ferrell are also active supporters of eco-causes.

Gardening for the Greater Good

- Faith Popcorn calls this the SOS trend – Save Our Society – a responsibility trend
- We pick brands and companies that are good for society
- Spend our time and dollars to build up society
- We feel responsible for society
Mega Trend #9: Eco-Chic

- Healthy living trend is gaining force in all aspects of our lives.

- 66% of U.S. consumers reported in 2004 that they use organic products at least occasionally. That's up from 55 percent in 2000.

- The Organic Trade Association says annual sales of organic products in the US leapt from $1 billion in 1990 to $20 billion in 2005.

Mega Trend #9: Gardening With Nature

- In keeping with the healthy living trend, consumers are seeking sustainable gardening principles.

- As a result, there is a shift to using fewer chemicals as a part of a healthier, holistic lifestyle.
Mega Trend #9: Eco Chic

- National Gardening Association reports that some 5 million American families (4%) are using all-natural gardening methods.

- NGA predicts that the demand for earth friendly products could “quadruple in the next few years.”

Gardening for the Greater Good

- A safe place for pets & family

- Choosing and installing plants that are “easy on the earth”, rather than simply enhancing and beautifying the space

- Watering less & cutting back on chemicals
Mega Trend #9: Gardening With Nature

Nursery and greenhouse crops consumption by household, 1994-2006.

Consumer Gardening Trends

- In 2007, 71% of U.S. HH (82 of 115M) participated in L&G activities
  - 67% lawn care (55M HH)
  - 42% indoor houseplants (35M HH)
  - 42% flower gardening (35M HH)
  - 37% landscaping (31M HH)
  - 30% vegetable gardening (25M HH)
  - 26% container gardening (21M HH)

Source: 2007 National Gardening Survey, NGA.
Consumer Gardening Trends

- Average 2007 Expenditures: $428/HH (+7%)
  - Lawn care - $208/HH
  - Indoor houseplants - $34/HH
  - Flower gardening - $71/HH
  - Landscaping - $350/HH
  - Vegetable gardening - $58/HH
  - Container gardening - $48/HH

Source: 2007 National Gardening Survey, NGA.

Consumer Gardening Trends

- Highest level of participation from:
  - 55+ years of age; 35-44 years of age
  - College graduates
  - Married
  - HH Income ≥ $75,000
  - 2-person HH, no children, South

Source: 2007 National Gardening Survey, NGA.
Why do people not garden more?

1. Costs too much
2. No time
3. Hayfever
4. Brown thumb
5. NASCAR

Reasons for not gardening

Source: Bill Calkins, Ball Horticultural Company
Total U.S. household lawn and garden retail sales vs. lawn/landscape services, 1999-2006.

DIY L&G activities = $34.1Bn in 2006
L&L services = $44.7Bn in 2006

Trend in Total U.S. Housing Starts

Housing Starts

Updated 12/14/07
Consumer Gardening Trends

- Outlets used for purchasing (M HH):

<table>
<thead>
<tr>
<th>Outlet</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mail order/Internet</td>
<td>8%</td>
</tr>
<tr>
<td>Feed/Seed Stores</td>
<td>9%</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>12%</td>
</tr>
<tr>
<td>Hardware Stores</td>
<td>24%</td>
</tr>
<tr>
<td>Independent GCs</td>
<td>31%</td>
</tr>
<tr>
<td>Mass Merchants</td>
<td>37%</td>
</tr>
<tr>
<td>Home Centers</td>
<td>40%</td>
</tr>
</tbody>
</table>

Source: 2007 National Gardening Survey, NGA.

Figure 7: Floral Consumers by Life Stage (in percents)¹

<table>
<thead>
<tr>
<th>Life Stage</th>
<th>% Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 75 Years</td>
<td></td>
</tr>
<tr>
<td>Married Active Elderly</td>
<td></td>
</tr>
<tr>
<td>Single Active Elderly</td>
<td></td>
</tr>
<tr>
<td>Lower/Mid Income Empty Nesters</td>
<td></td>
</tr>
<tr>
<td>Affluent Empty Nesters</td>
<td></td>
</tr>
<tr>
<td>Lower/Mid Income Trad Family</td>
<td></td>
</tr>
<tr>
<td>Affluent Traditional Family</td>
<td></td>
</tr>
<tr>
<td>Single Parent</td>
<td></td>
</tr>
<tr>
<td>Working Parents</td>
<td></td>
</tr>
<tr>
<td>DINKS (dual incomes, no kids)</td>
<td></td>
</tr>
<tr>
<td>Lower/Mid Income Singles</td>
<td></td>
</tr>
<tr>
<td>Affluent Singles</td>
<td></td>
</tr>
</tbody>
</table>
Figure 22: Buying Trends by Floral Segment

Figure 23: Sales Trends by Floral Segment

Figure 28: Where Consumers Purchase Floral Items
Table 4. Major Retail Outlets by Floral Segments (in percents)\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>Florist Shop</th>
<th>Garden Center</th>
<th>Discount Chain</th>
<th>Home Improvement/ Hardware Center</th>
<th>Supermarket</th>
<th>Internet Retailer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Flowers</td>
<td>\textbf{76.7}</td>
<td>3.1</td>
<td>18.3</td>
<td>0.9</td>
<td>\textbf{63.6}</td>
<td>\textbf{65.5}</td>
</tr>
<tr>
<td>Houseplants</td>
<td>16.4</td>
<td>17.3</td>
<td>22.9</td>
<td>22.9</td>
<td>20.5</td>
<td>12.8</td>
</tr>
<tr>
<td>Bedding/Garden Plants</td>
<td>6.9</td>
<td>\textbf{79.6}</td>
<td>\textbf{58.8}</td>
<td>\textbf{76.1}</td>
<td>15.8</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Industry has shown recession resistance and strong correlation to housing starts.
Floriculture Crops
Expanded Wholesale Value, 15-State Program,
for Operations with $10,000+ Sales, 1998-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>$3.04</td>
</tr>
<tr>
<td>'99</td>
<td>$3.12</td>
</tr>
<tr>
<td>2000</td>
<td>$3.50</td>
</tr>
<tr>
<td>'01</td>
<td>$3.76</td>
</tr>
<tr>
<td>'02</td>
<td>$3.05</td>
</tr>
<tr>
<td>'03</td>
<td>$3.00</td>
</tr>
<tr>
<td>'04</td>
<td>$4.11</td>
</tr>
<tr>
<td>'05</td>
<td>$4.15</td>
</tr>
<tr>
<td>'06</td>
<td>$4.02</td>
</tr>
<tr>
<td>2007</td>
<td>$4.10</td>
</tr>
</tbody>
</table>

Production Year

Figure 59: Sales of Floriculture Crops by Year

- Actual Sales
- Linear (Sales in Constant 2005 Dollars)
- Sales in Constant 2005 Dollars
- Linear (Actual Sales)

* = preliminary
Figure 64: Sales of Bedding/Garden Plants by Year

Figure 66: Floriculture Crops Value: Percent Change from Previous Year
### Table 29: Market Share of Floriculture Segments by Year

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut Flowers</td>
<td>25.76</td>
<td>22.04</td>
<td>18.63</td>
<td>13.78</td>
<td>10.11</td>
<td>7.86</td>
</tr>
<tr>
<td>Potted Flowering Plants</td>
<td>22.16</td>
<td>17.29</td>
<td>25.2</td>
<td>22.16</td>
<td>18.80</td>
<td>15.91</td>
</tr>
<tr>
<td>Potted Foliage Plants</td>
<td>33.04</td>
<td>27.8</td>
<td>18.91</td>
<td>16.23</td>
<td>13.17</td>
<td>14.18</td>
</tr>
<tr>
<td>Bedding/Garden Plants</td>
<td>19.03</td>
<td>28.91</td>
<td>33.02</td>
<td>44.15</td>
<td>49.26</td>
<td>51.41</td>
</tr>
<tr>
<td>Cut Cultivated Greens</td>
<td>3.96</td>
<td>4.24</td>
<td>3.68</td>
<td>2.97</td>
<td>2.06</td>
<td></td>
</tr>
<tr>
<td>Propagative Materials</td>
<td>5.69</td>
<td>8.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### Floriculture Crops

**Wholesale Value of Sales by Plant Category, 15-State Program, for Operations with $100,000+ Sales, 2007**

- **Propagative Floriculture Materials**: $379
- **Cut Cultivated Greens**: $92 (2.3%)
- **Herbaceous Perennial Plants**: $503
- **Potted Flowering Plants**: $661
- **Foliage Plants for Indoor/Patio Use**: $630
- **Annual Bedding/Garden Plants**: $1,262

**Sales Million Dollars**
The average annual growth rate of grower-level sales has _____ since 1967?

1. Increased
2. Decreased
3. Stayed the same
4. Don’t know


- In the 1970’s: 13.64%
- In the 1980’s: 9.91%
- In the 1990’s: 4.64%
- In the 2000’s: 2.87%

Since May 2007, the Prices Paid by Farmers Index (crop sector) has risen by...

1. 14%
2. 23%
3. 27%
4. 35%
5. 50%

Prices Paid by Farmers, Major Indexes
US, Annual Averages 1/

1/ Index values for 2008 are year-to-date averages.
The Rising Cost of Gettin’ By

- Chemicals ↑7%
- Fuel ↑49%
- Fertilizer ↑69%
- Containers ↑11%
- Machinery ↑7%
- CPI ↑4%

*** price increases since May 2007
The Cost-Price Squeeze for Growers

Retail consolidation
Fewer buyers
Oversupply

- Product tags/labels
- JIT delivery, setup & care
- Barcode/pre-pricing
- Returnable shipping equipment
- Pay-by-scan
- Take back unsold product
- Consistent pricing
- Continuous volume replenishment
- Rising input costs (e.g. fuel)
- Labor availability

The Cost-Price Squeeze for Service Firms

Retail price pressure
Lowball competitors
Oversupply

- Rising fuel costs
- Labor costs (wages) and availability (H2B)
- Increased costs of materials (top soil, mulch)
- Increased workers’ compensation rates
- Cost of health care insurance
- Increased equipment costs
- Regulatory compliance (air & noise)
Emotional reactions to rising costs?

- “These staggering costs have us scared to death”
- “We are surviving, but profit-wise, it’s a squeeze.”
- “Costs of energy, labor, fumigants, pots, polyethylene, delivery – everything is going up. It’s really beginning to hurt.”

Quotes from article in *Florists Review.*

MAY 10, 1979!

Signs of a maturing industry

- Slowing demand breeds stiffer competition.
- More sophisticated buyers demand price alignment.
- Greater emphasis on cost reduction and service.
- “Topping out” problem in adding production capacity.
- Product innovation and new end uses harder to come by.
- International competition increases.
- Industry profitability falls due to decreasing margins.
- Mergers and acquisitions reduce number of industry rivals.
So the $64 question is this…

What do firms need to do to compete successfully in a maturing floriculture market?