Nutraceutical Industry Analysis

工業局94年度農業生技產業化策略推動計畫

台灣經濟研究院
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2005/08/17
Obesity

- An estimated 130 million Americans-64% of us- are overweight or obese
- 59 million- a full 30% - of adults are obese
- Obesity is driving serious health risks, including heart disease and diabetes
- According to a RAND Corporation Study, healthcare costs related to obesity could reach 20% by 2020
### USDA suggest Federal Nutrition Panel

<table>
<thead>
<tr>
<th>2200 calorie diet</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits (servings per day)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Vegetables (servings per day)</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Grains (servings per day)</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Meat and Beans (ounces per day)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Milk (servings per day)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Oil (grams per day)</td>
<td>NA</td>
<td>27</td>
</tr>
<tr>
<td>Discretionary daily calories</td>
<td>NA</td>
<td>235</td>
</tr>
</tbody>
</table>
# U.S. Nutrition Industry Growth, 2001 to 2003

<table>
<thead>
<tr>
<th>Products</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>Growth</th>
<th>EST CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamins</td>
<td>6,025</td>
<td>6,179</td>
<td>6,648</td>
<td>7.6%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Herbs/Botanicals</td>
<td>4,397</td>
<td>4,276</td>
<td>4,197</td>
<td>-1.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Sports Nutrition</td>
<td>1,729</td>
<td>1,828</td>
<td>1,975</td>
<td>8.0%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Minerals</td>
<td>1,392</td>
<td>1,527</td>
<td>1,765</td>
<td>15.6%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Meal Supplements</td>
<td>2,305</td>
<td>2,571</td>
<td>2,522</td>
<td>-1.9%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Specialty/Other</td>
<td>2,230</td>
<td>2,374</td>
<td>2,715</td>
<td>14.4%</td>
<td>9.5%</td>
</tr>
<tr>
<td><strong>Supplements</strong></td>
<td>18,078</td>
<td>18,755</td>
<td>19,821</td>
<td>5.7%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Natural &amp; Organic Food</td>
<td>13,158</td>
<td>14,362</td>
<td>16,240</td>
<td>13.1%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Functional Foods</td>
<td>18,820</td>
<td>20,480</td>
<td>21,890</td>
<td>6.9%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Natural Personal Care</td>
<td>4,113</td>
<td>4,523</td>
<td>4,917</td>
<td>8.7%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Nutrition Industry</td>
<td>54,170</td>
<td>58,120</td>
<td>62,868</td>
<td>8.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td><strong>Annual Growth</strong></td>
<td>7.4%</td>
<td>7.3%</td>
<td>8.2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CAGR = Compound Annual Growth Rate. Forecast is annual average.
## U.S. Nutrition Industry Growth, 2001 to 2003

<table>
<thead>
<tr>
<th>Sales Channels</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>Growth</th>
<th>EST CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail-Natural &amp; Specialty</td>
<td>17,343</td>
<td>18,673</td>
<td>20,916</td>
<td>12.0%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Retail-Mass Market</td>
<td>28,827</td>
<td>31,099</td>
<td>33,102</td>
<td>6.4%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Mail Order/DRTV</td>
<td>1,289</td>
<td>1,346</td>
<td>1,432</td>
<td>6.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Multilevel Network</td>
<td>5,081</td>
<td>5,218</td>
<td>5,407</td>
<td>3.6%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Practitioner</td>
<td>1,331</td>
<td>1,419</td>
<td>1,523</td>
<td>7.3%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Internet</td>
<td>307</td>
<td>375</td>
<td>495</td>
<td>32.2%</td>
<td>18.0%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>54,179</strong></td>
<td><strong>58,130</strong></td>
<td><strong>62,876</strong></td>
<td><strong>8.2%</strong></td>
<td><strong>6.8%</strong></td>
</tr>
</tbody>
</table>

Nutrition Industry IPO
Herbalife (HLF, Nasdaq)

Herbalife, Ltd. offers weight management, nutritional supplement, and personal care products in the United States.

最近交易價: 27.94
交易時間: 2005/08/17
漲跌: 0.06 (0.21%)
昨日收盤: 28.00
開盤: 27.97
買入: 無
賣出: 無
一年目標預測: 30.90

最後交易日價格幅度: 27.90 - 28.00
52周價格幅度: 14.00 - 28.55
成交量: 15,700
平均成交量(3個月): 264,932
市值: 19.20億
本益比(12個月): 169.33
每股收益(12個月): 0.17
股利和股息: 無 (無)

http://www.herbalife.com/
HANS : HANSEN NATURAL COR
NATR : NATURE S SUNSHINE
NUS : NU SKIN ENT INC
NAII : NATURAL ALTERNATIV

NUTR : NUTRACEUTICAL INTL
ISIC : Nasdaq
DJI : Dow
AMM : AMC INC CMN STK
M&A and Other Financing Transactions

- German Company Bayer announced the purchase of Roche’s consumer health business for $2.85 billion.
- Abbott Laboratories acquired nutritional food and supplements maker EAS for $320 million.
- Ripplewood Holding and Activated Holdings’ purchase of nutritional supplement maker Shaklee from Yamanouchi for $310 million.
- Industrial Bank of Taiwan also join the international VCs. (Efficas company)
Developing Good Science in the field of dietary supplements

**Government Department NIH**
NIH alone invested over $770 million in supporting nearly 2,600 research projects related to dietary supplements (1999~2003).

**Office of Dietary Supplements (ODS)**
The budget for ODS grew from $3.5 to $26 million. (1999, 2004)
Research Field

- Evidence-based reviews of dietary supplement efficacy and safety
- Development database of dietary supplement ingredients
- Development validation, and analytical method
- Others such as vitamin E, B, lipid, and St. John’s Wort.
Government Agencies Revisit Dietary Guidelines

- Calorie, nutritional information, and food labels
- Restaurants and industries are being encouraged to make sure food labels are accurate.
- Americans don’t eat enough fruit and vegetables.
Based on the information you provided and the average needs for your age, gender and physical activity [Age: 30, Sex: male, Physical Activity: Less than 30 Minutes] your results indicate that you should eat these amounts from the following food groups daily. Your results are based on a 2400 calorie pattern.

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains</td>
<td>8 ounces</td>
</tr>
<tr>
<td>Vegetables</td>
<td>3 cups</td>
</tr>
<tr>
<td>Fruits</td>
<td>2 cups</td>
</tr>
<tr>
<td>Milk</td>
<td>3 cups</td>
</tr>
<tr>
<td>Meat &amp; Beans</td>
<td>6.5 ounces</td>
</tr>
</tbody>
</table>

http://www.mypyramid.gov/
Special Diet Plans

- Atkins Diet (low-carb craze)
- Low-Carb Corn
- Low-Carb Alternatives
  
  3375 products being launched by food companies in the US in 2004

- Sucralose

In 2004, health became the new standard for the global food industry.
Diet, Diabetes, and Disease

- Diabetes is the sixth leading cause of death in the United States, affecting over 18 million people.
- Soft drinks are link to weight gain, and Pepsi and Coca-Cola introduced reduced-sugar colas.
- Omega-3 fatty acids (DHA and EPA) could be labeled “Heart Healthy”
Nutraceuticals and Disease

- Vitamin A, C, and E, are most popular antioxidants
- Vitamin E, Green Tea, and Soy are ready to take on cancer
- Choline, folic acid, and Vitamin B could help neuron growth.
- Soy extracted phytoestrogen (plant-based estrogens) could replace hormone therapy
- Lutein be found in such foods as dark-green leafy vegetables, can reverse damage to the eyes from aging.
**LDL, Cholesterol, HDL**

- Average Americans LDL is 127 (normal is 100), and there are current 29 million patients at risk for heart problems, and only 18 million on statin regimen.

- Lipitor (**Pfizer**), Crestor (**AstraZeneca**), Vytorin (**Schering-Plough**), and Zocor (**Merck**) etc. These statins could help reduce LDL or cholesterol, and prevent cardiovascular diseases.

- Statins in the 2004 pharmaceutical markets values are more than 20 millions.
Obesity is still a growing problem worldwide

- Obesity could increase related chronic diseases rates such as diabetes, cardiovascular diseases, osteoarthritis, and cancer.
- Some biomolecular such as leptin, ghrelin, protein YY (PYY), and cholecystokinin, may related to fighting obesity.
- Xenical (Roche), Reductil (Abbott), and Acomplia (Sanofi-Aventis, Phase III) could treatment for obesity($ 500 million in 2003; 2.3 billion in 2013).
- United States spent over $ 75 billion on medical expenditures attributable to obesity in 2004.
Functional food blur the line between food and medicine

- Functional foods are cheaper and safer alternative to pharmaceuticals.
- Americans spent 10 of billion of dollars in 2004 on functional foods, drinks, and supplements.
- Energy-boosting ingredients including amino acids, vitamins, and herbs.
- Avon, Shiseido, L’Ore’al, Nestle, all join the market, especially on anti-aging.
Products to Watch in 2005

- Omega-3 fatty acids
- Low-carb food products
- Liquid meal replacements
- Drinks
Potential annual savings with nutraceuticals / functional foods

- Disease Prevention $ 20 billion
- Disease Management $ 10 billion

Focus Disease Markets on
- Cardiovascular disease, and risk factors
- Type II diabetes
- Cancer
- Osteoporosis
- Kidney disorders
- Inflammatory conditions
- Psychiatric disorders
- Others
簡報結束，敬請指正！

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