BLUEBERRY TRENDS AND MARKET CHALLENGES

Blueberries™
U.S. HIGHBUSH BLUEBERRY COUNCIL
BLUEBERRY MARKET SITUATION

- Health Interest Continues to Drive Blueberry Demand
- Blueberry Interest Encourages Increased Worldwide Blueberry Production
- Industry Efforts Needed to Keep Demand Ahead of Supply
An Increase of +33% in Three Years from 71,000 Acres to More Than 95,000 Acres

NORTH AMERICAN HIGHBUSH BLUEBERRY
ACREAGE ESTIMATES- 2005 to 2008

Mexico
Canada
USA
Impressive Acreage Growth in Western and Southern States Over the Past Five Years While Traditional Growing Areas Remain Fairly Constant, Though New Higher Yielding Varieties Replacing Some Bushes on Existing Acreage
Production has increased more than five fold over the past 40 years from 71 million pounds in 1968 to an estimated 407 million pounds in 2008.
GROWTH IN WORLDWIDE Highbush Blueberry Acreage

2003 to 2008

Total Acreage has Nearly Doubled from 83,299 Acres to Estimated 163,065 Acres
51% Increase in North America from 63,360 to 95,607 Acres
All Other Producers Up 356% from 18,939 to 67,458 Acres
South American Acreage Increased by Over 32,000 Acres in Five Years (Primarily Chile and Argentina). Europe is up 9,000 Acres (Primarily Spain, Germany and Poland) and Asian Acreage has Increased by Over 5,000 Acres (Primarily China).
World Highbush Production Could Reach Over 1.5 Billion Pounds by 2015
North American Highbush Production Could Increase from 400 to Over 900 Million Pounds

Projected Worldwide Blueberry Production

Projected Production Increase

Current Level of Production

Millions of Pounds

MARKET OPPORTUNITIES

• Blueberry Per Capita Consumption has Room to Grow
• Underdeveloped Domestic Markets
• Limited Volume Currently Allocated to Offshore Markets
• Blueberries Continue as Key Ingredient in New Product Development
• Blueberry “Health Halo” Remains a Purchase Driver
BLUEBERRY INTEREST REFLECTED IN U.S. PER CAPITA CONSUMPTION INCREASES

Total Increase of +93% from 13.8 ounces in 1998 to an estimated 26.6 ounces in 2008
Fresh Consumption More Than Doubled (5.2 ounces to estimated 12.3 ounces)
Process Consumption Up +66% (8.6 ounces to estimated 14.3 ounces)
PER CAPITA CONSUMPTION OF VARIOUS TYPES OF FRESH FRUIT IN 2007

Source: USDA ERS- Fresh Fruit Farm Weight

- Grapes
- Strawberries
- Pears
- Mangos
- Papayas
- Blueberries
- Kiwi

POUNDS PER PERSON

Graph showing the per capita consumption of various types of fresh fruit in 2007.
PERCENT OF CONSUMERS PURCHASING BERRIES IN 2008

Source: The Packer Fresh Trends 2009

Percent Purchasing by Berry Type

- STRAWBERRIES
- BLUEBERRIES
- RASPBERRIES
- BLACKBERRIES
OPPORTUNITY TO EXPAND DOMESTIC MARKETS

PERCENTAGE OF CONSUMERS PURCHASING BLUEBERRIES IN 2008

Source: The Packer Fresh Trends 2009
Only 3% of U.S. Highbush Blueberry Crop Shipped Offshore in 2008 (10.2 million lbs. fresh and frozen)

Nearly Two out of Every Three Shipments Were to Japan (6.4 million lbs.) Followed by United Kingdom (1.4 million) and South Korea (0.9 million)
INDIA NOW OPEN TO FRESH BLUEBERRY IMPORTS

One Billion Potential Blueberry Customers

Growing Middle Class Interested in High Quality Goods

First Fresh Shipments- September 2008

Sampling Promotions at Big Bazaar Stores in Mumbai and New Delhi

Blueberries Well Accepted with 78% Noting Taste as “Excellent”
NEW PRODUCT DEVELOPMENT—
A KEY TO INCREASED CONSUMPTION

• New Product Development Continues Upward Trend
• Over 1,400 New Blueberry Products Introduced in North America in 2008
• Top Categories: Non-Alcoholic Beverages
  Dairy Products
  Baked Goods
• Opportunity to Expand Blueberry Use Beyond Traditional Applications to Cosmetics and Pet Foods

New Blueberry Products/North America
HEALTH RESEARCH
A MAJOR COMPONENT OF USHBC MARKET PROMOTION PROGRAM
Super berries! New fruits like goji and acai pack a ton of nutrients

Pomegranate Juice Is Packed With Antioxidants

It’s time to start ordering pomegranate juice at girls’ night out (or making your own pome-ritas at home). A new University of California, Los Angeles, study ranked 10 beverages by their levels of disease-fighting antioxidants—and pomegranate juice came out on top. Here, the healthiest beverage powerhouses:

1. Pomegranate juice
2. Red wine

The Cranberry Advantage

The whole fruit trumps juices and canned jellies—with more fiber and antioxidants

The Star: Cranberries.

These festive, ruby-hued beauties beat out coffee, blueberries, and even red wine in a recent analysis of antioxidants reported in the American Journal of Clinical Nutrition.
**USHBC RESEARCH PROJECTS**

**Age Related Diseases**
*Parkinson’s, Alzheimer’s, Diabetes, Bone Density, Cancer*
- USDA HNRCA- Boston
- Loyola University-Chicago
- Agri-Food Canada
- National Institutes of Health
- Johns Hopkins University
- Oklahoma State University
- Pennington Research Center
- University of Cincinnati
- City of Hope

**Vision Studies**
- Dalhousie University/Agri-Food Canada
- Louisiana State University

**Food Safety**
- Michigan State University
- Penn State University
Given Growth Projections Will Need to Significantly Increase Per Capita Consumption by Year 2015

Increase U.S. Per Capita Consumption by +65% from Estimated 26.6 Ounces in 2008 to 44.0 Ounces by 2015 to Keep Pace With Record Levels of Production
USHBC BLUEPRINT 2015
Building Demand to Meet Future Supply

• Expand Health Research and Move to Human Clinical Trials
• Reach Out to a Larger Audience, Explore New Markets and Uses
• Maintain Consumer Awareness of Blueberries and Health Given More Aggressive Claims By Other Fruit and Vegetable Groups
• Expand Current Promotional Activities and Broaden Audience Reach Through Advertising Programs
• Support Good Management and Food Safety Practices