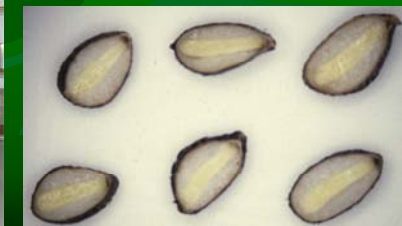
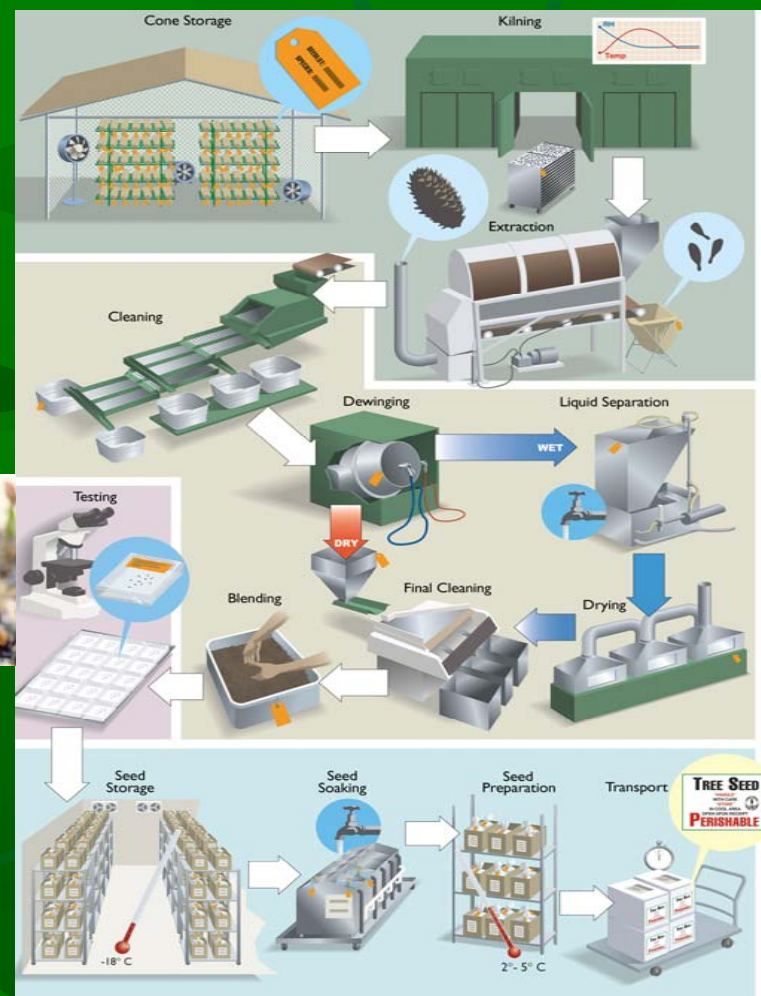
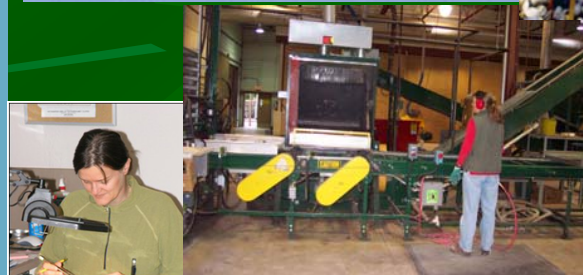
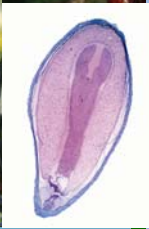


Tree Seed Workshop



2007

Tree Seed Workshop 07 Program

- 8:00 Interaction & Refreshments
- 8:30 Introduction
- 8:40 Extension and ETAC
- 8:50 Conifer Reproductive Biology
- 9:15 Tree Seed Fungi and Seed-borne diseases
- 10:00 Interaction & Refreshments
- 10:30 Tree Seed Biology
- 12:00 LUNCH
- 1:00 Tree Seed Centre Operations
 - Cone and Seed Processing
 - Inventory Management
 - Testing
- 2:00 Germination Environment
- 2:30 Interaction & Refreshments
- 2:45 Seed Planning Basics
- 3:00 Questions / Demonstrations

Prince George
Vernon
Kamloops
Mesachie Lake
Langley



Workshop Team

- **Dave Kolotelo**

- Cone and Seed Improvement Officer
- BC MFR Tree Seed Centre

- **Michael Peterson**

- Seed + Seedling Pathologist / Climatologist
- Applied Forest Science Ltd.

- **Diane Douglas**

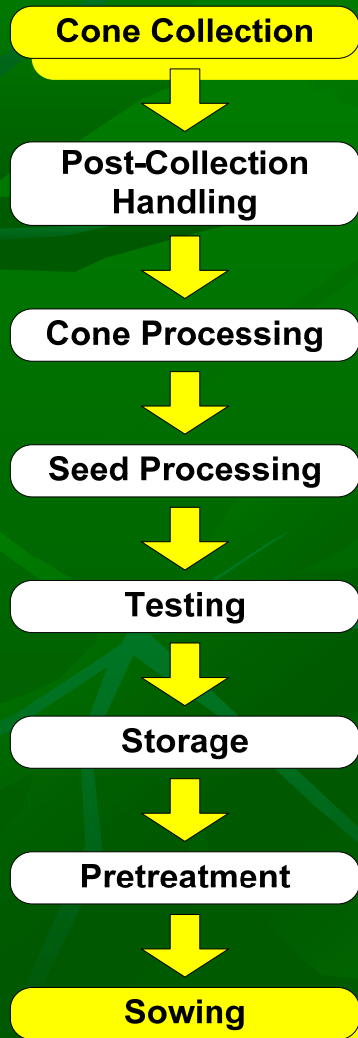
- Extension Specialist
- Tree Improvement Branch / ETAC

Objectives

- ✓ To become more knowledgeable about conifer seed development and biology (*morphology, anatomy, physiology*)
- ✓ To create awareness of fungal growth and reproduction and its implications (*3 pathogens +*)
- ✓ To learn about operational tree seed services and activities
- ✓ To appreciate the impact of environmental variables on germination stages 1 and 2
- ✓ To learn basic seed planning principles
- ✓ To be able to ask questions regarding all of the above

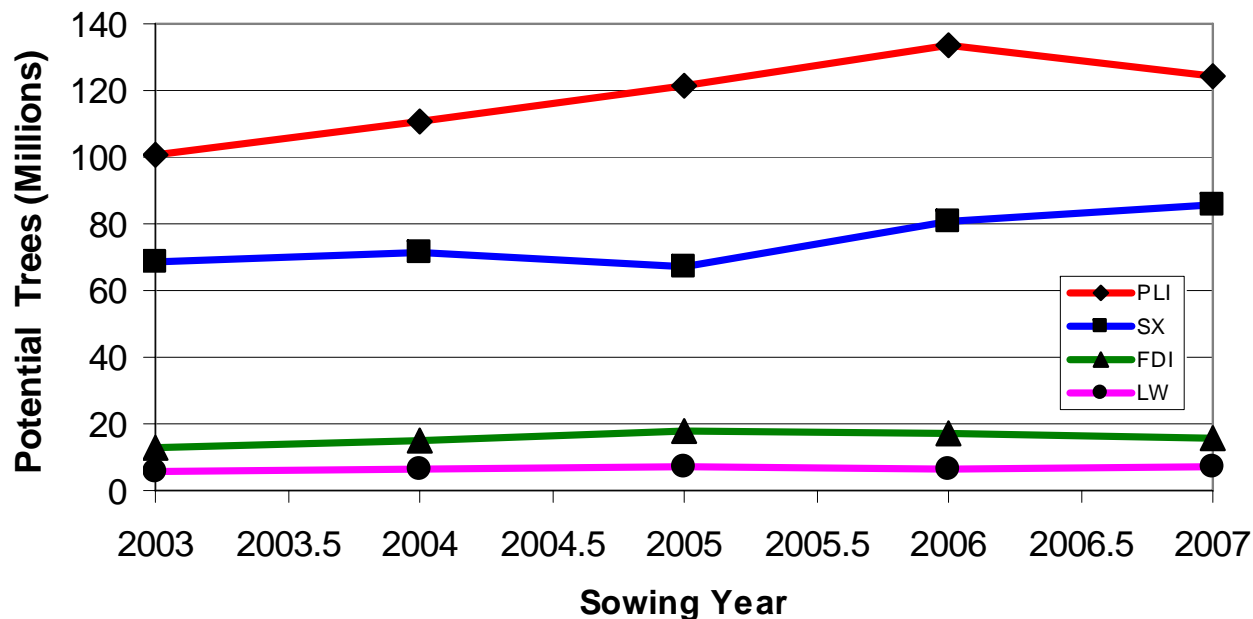
Scope

Seed Handling System



- Examines all steps of seed handling from collection to use
- Any previous “**Link**” can impact your product
- Integrated-efficient system (CI)
- We are all part of this chain-of-custody together
- Conifers are incredibly variable organisms

Big Two or Big Four



$Pli + Sx = 77\%$ of sowing

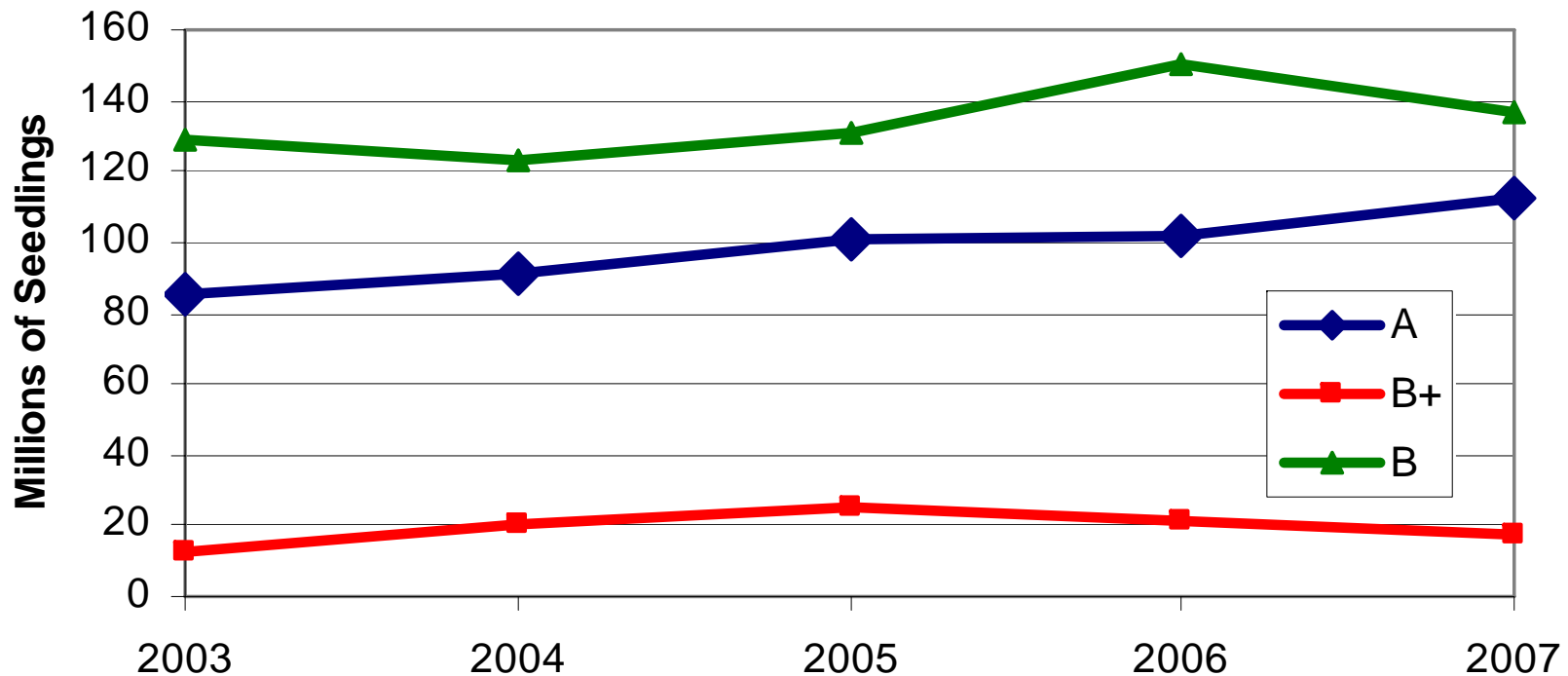
$Pli + Sx + Fd + Cw = 86\%$ of sowing **Actually decreasing!**

• 2003 to 2006 – Pli 11 M year increase (MPB + fires)

• 2007 – Pli 9 M decrease

2008 onwards ???

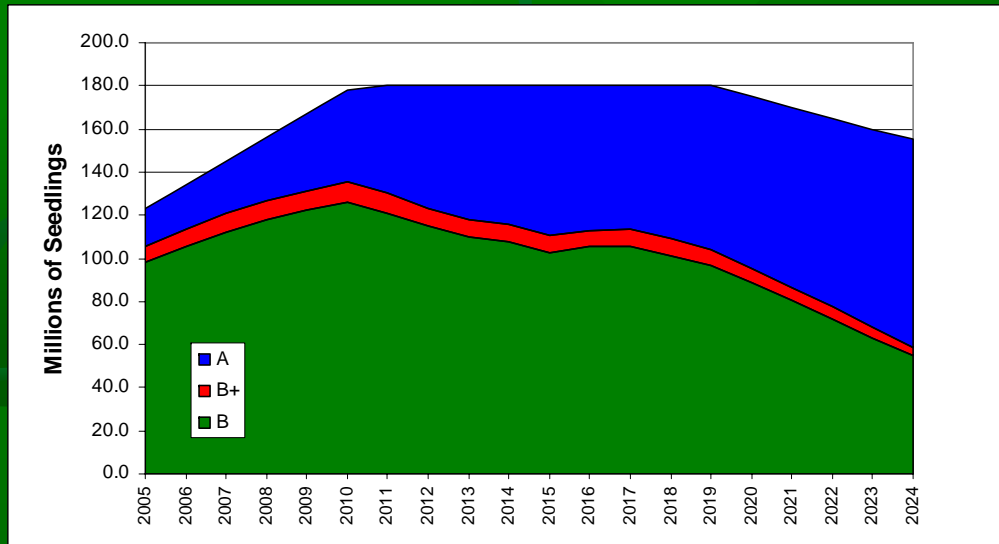
Use by Genetic Class



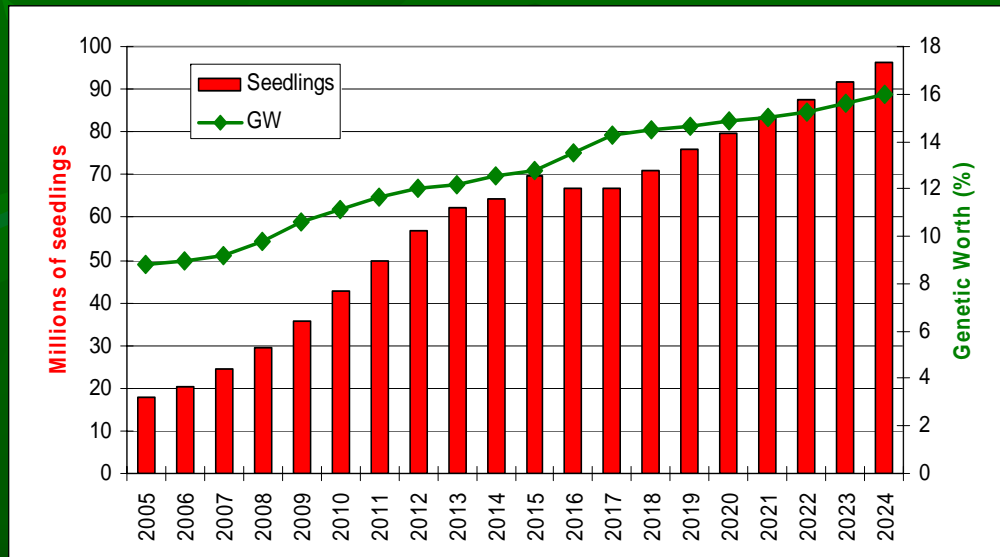
A class seed currently 42% of sowing (2007)

A and B+ class seed currently 49% of sowing (2007)

Lodgepole pine



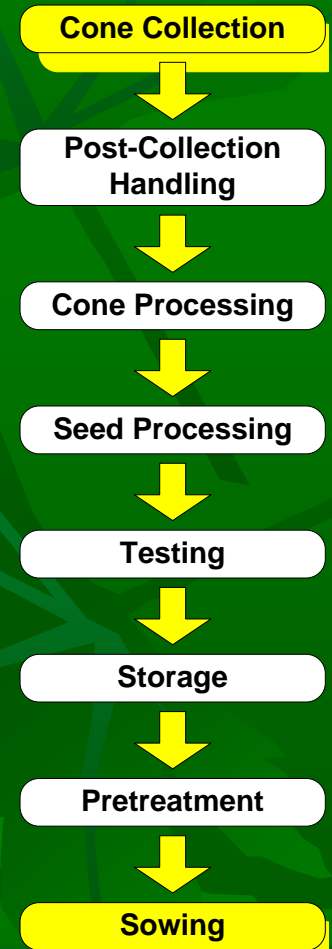
- Pli Natural stand seed used well into the future
- Lots of uncertainty/assumptions in these predictions – primarily DEMAND



- Pli orchard future looks brighter
- Production to 50 M by 2012
- On-course or slightly ahead!
- Gain also increasing, but not as quickly as other species

Potential Seedlings

- Used in a variety of places
 - A seedlots total potential seedlings
 - Grams required to meet a sowing request
 - A planning tool
 - Grams can be adjusted (owner/nursery)
- Conversion from seedlings to seed (vice versa)
 - Weight of seed
 - Seeds per Gram
 - Germination Capacity
- vs. RESULTS data (planning) - Future
 - Time lag
 - ongoing data backlog – currently limiting



BC MFR Sowing Guidelines

