

AA0377

RPG - canada
1989
(ALH FILE)

401097145

BATCo document for Province of British Columbia 16 April 1999

B&W
BIOTECHNOLOGY

APPROACHES

GENETIC BREEDING

MOLECULAR BIOLOGY

ISSUES

05350/1

401097146

BATCo document for Province of British Columbia 16 April 1999

BIOTECHNOLOGY
APPROACHES

- DUAL APPROACH
 - GENETIC BREEDING
 - MOLECULAR BIOLOGY

- GENETIC BREEDING
 - USES EXISTING TRAITS
 - TECHNOLOGIES SUCH AS PROTOPLAST FUSION AND
SOMOCLONAL VARIATION
 - REDUCES CYCLE TIME ASSOCIATED WITH HYBRID CROSSING

- MOLECULAR BIOLOGY
 - MOLECULAR LEVEL ALTERATION
 - SPECIFIC GENE IDENTIFICATION FOR DESIRED TRAITS
 - ENHANCED FLEXIBILITY

05350/2

401097147

COMPARISON OF BIOTECHNOLOGY APPROACHES

	GENETIC BREEDING	MOLECULAR BIOLOGY
1. ABILITY TO MANIPULATE A SINGLE TRAIT (SPECIFICITY)		✓
2. ABILITY TO DEVELOP "UNLIMITED" RANGE OF TRAITS (UNIQUENESS)		✓
3. ABILITY TO HAVE PROPRIETARY DEVELOPMENT		✓
4. AGRONOMIC SUITABILITY		
5. REDUCED CYCLE TIME FOR DEVELOPMENT		✓
6. REDUCED RISK OF REGULATION	✓	
7. LOWER DEVELOPMENT COST	✓	

✓ - ADVANTAGE

BIOT

40109/148

B&W
GENETIC BREEDING
PROGRAMS

- Y-1 HIGH NICOTINE FLUE CURED
 - NICOTINE VALUES INCREASED TO - 6.5%
 - AGRONOMIC TRAITS BUILT IN
 - PRODUCT DEVELOPMENT UNDERWAY/GOAL IS TO PROVIDE ENHANCED QUALITY AT LOWER TAR
 - LTS AND ULTRAS CPT IN PROGRESS
 - 1.4 MILLION POUNDS COMMITTED IN BRAZIL THIS YEAR FOR PRODUCT LAUNCH IN 1991

- HIGH NICOTINE BURLEY
 - COMPLIMENTARY TO Y-1 PROGRAM
 - CAN PROVIDE INCREASED BLEND AND TASTE FLEXIBILITY
 - FIELD TRAILS IN PROGRESS
 - SMOKE QUALITY TO BE EVALUATED

- ALTERNATE FLAVORS
 - MADURA
 - GALPOA COMUN
 - EVALUATING CROSSES WITH BURLEY

- RESOURCES
 - DNA PLANT TECHNOLOGY (NJ)

05350/3

401097149

B&W
MOLECULAR BIOLOGY
PROGRAMS

- GENETIC MAPPING
 - CHARACTERIZE Y-1, HIGH-NIC BURLEY, AND FLAVOR VARIETIES
 - GOAL IS TO REDUCE CYCLE TIME THROUGH IDENTIFICATION OF ENHANCED CROSSES

- ANALYTICAL
 - USE GENE MAPPING TO "FINGERPRINT" TOBACCO TYPES
 - DEVELOP FOR USE AS BLEND SEPARATION TOOL FOR COMPETITIVE AND B&W PRODUCTS

- ASSESS FEASIBILITY OF APPROACHES FOR
 - WATER RETENTION
 - SENESCENCE
 - DISEASE CONTROL

- RESOURCES
 - DNA PLANT TECHNOLOGY (CA)

05350/4

401097150

BATCo document for Province of British Columbia 16 April 1999

Restricted/AT

DNA PLANT TECHNOLOGY

	<u>TOTAL</u>	<u>EAST</u>	<u>WEST</u>	<u>ADVANCED TECHNOLOGIES</u> (Cambridge)
Total Assets	\$ 48M			
R&D Budget	15M			\$1.7M
People	180	85	95	30
Facilities		40,000 SF Lab 1.1 Acre Greenhouse 100 Acre Farm	45,000 SF Lab 0.25 Acre Greenhouse 91 Acre Farms	
Disciplines		Cell Genetics Tissue Culture Biochemistry Agronomy	Molecular Biology Microbiology	Tissue Culture Molecular Biology Biochemistry Cell Genetics
Products	Vegianax Tomatoes Edible Oils Industrial Oils Tropical Plants Cereals Floriculture Diagnostic Kits Snomax Tobacco			Flowers Trees Tobacco

8/30/89
0311P

401097151

BATCO document for Province of British Columbia 16 April 1999

BATCO

00003789

BIOTECHNOLOGY ISSUES

- TOBACCO PRODUCTION
 - OFFSHORE vs DOMESTIC (AUCTION MARKET)
- REGULATORY
 - EPA

05350/5

401097152

BATCo document for Province of British Columbia 16 April 1999

ADMINISTRATION

401097153

AGENDA

401097154