

### DRY RECONSTITUTED SHEET

#### Objective:

The objective of this project is the development of a commercial process for reconstitution which offers economic benefits relative to other reconstitution processes while maintaining the quality specifications established by Brand R&D.

#### Status:

The complete screw extrusion line with the jet zone type dryer is operational at 150-250 lb./hr. DRS made from cigarette dust is being produced for use in primary processing/making tests. The first tests using 5 to 25% DRS are scheduled for mid-June in the R&D plant.

The next area that will be addressed in the pilot line is equipment requirements to increase the dryer capacity from the current of 150-250 lbs./hr. Improved metallurgy for the extruder will also be studied.

### WHOLE LEAF PROCESSING

#### Objective:

Whole Leaf Processing is directed to the objective of producing cut filler directly from leaf without threshing. The benefit will be a 2-5% increase in the yield of cigarettes per unit weight of tobacco purchased.

#### Status:

A complete in-depth review of the WLP development plan was undertaken in May. From this it was decided to suspend the G-13 tests in favor of an acceleration of the development for implementation in primary processing. The classifier optimization tests were started in May; these will continue through the third quarter. The new plan will start the making tests with a complete blend in June.

### EXPANDED STEMS

#### Objective:

The objective of this project is the specification and installation of a process line for the expansion of cut, rolled, flue-cured stems which will be used as part of the Brand R&D program.

#### Status:

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The preliminary Engineering for a pilot line in Shed 113 is on schedule for completion in July. If the long lead equipment items are prefunded, the line can be in operation the second quarter of 1989.

Brand R&D is starting a test series in June on the potential for using CRS to replace G-13 in the Ultra Lights products.

### G-7 DEVELOPMENT

#### Objective:

The G-7 Development project is pursuing new means to: improve the sensory characteristics of G-7, improve its filling capacity, increase the process yield, and reduce manufacturing costs.

#### Status:

Equipment and design specifications have been completed for a commercial Fourdrinier and headbox for G7 Plant 603 renovation. Detailed information has been provided to Tobacco Processing Division for purchase specifications. Purchase inquiries have been sent to paper machinery builders for budget prices for Fourdriniers. Specifications for the press section and white water piping system will be completed during June. Seminars are being conducted to familiarize Tobacco Processing personnel with Fourdrinier headboxes, wire sections, machine drives, G7 filling capacity, pressing and white water systems.

### TOBACCO EXPANSION PROGRAM

#### Objective:

The goal of the Tobacco Expansion Program is to improve the uniformity of G-13 filling capacity and reduce fines level in order to improve smoking consistency. The program also includes efforts to reduce chlorofluorocarbon usage and to develop alternative expansion processes in order to meet potential legislative or regulatory limitations on selected chlorofluorocarbons.

#### Status:

Chemical, physical, and Ames testing have been completed for cigarettes prepared from G13 using HCFC-123 and CFC-11. Sensory testing will be completed during June. No additional development activities are planned for HCFC-123 as a substitute for CFC-11.

Pressure testing, function operation and certification were completed for the high pressure impregnation vessel fabricated at WSF Industries. The vessel was shipped to AVOCA on May 25. Installation is proceeding without delay and will be completed by July. A feasibility engineering study has been requested for a commercial pilot plant for propane expansion of tobacco. Development activities have been initiated for bench scale equipment directed toward a high pressure continuous process.

Because of current activities concerning CFCs, proposals to fast track the program were presented to the Tobacco Expansion Oversight Committee on May 11. It was recommended that development of CFC-123 alternative be terminated. Development efforts will be concentrated on rapid commercialization of alternate tobacco expansion methods.

### G7A

#### Objective:

The objective of the G-7A effort is to define the specifications of G-7A and to develop new process means which can more economically and more uniformly produce G-7A than is currently the case in plant 605.

#### Status:

Brand R&D received approval from Marketing management to proceed with the installation of ammoniated extract technology. Consequently, a product implementation plan has been developed which involves a gradual scale up of G-7 AE use over a six month period. Tobacco Processing is preparing an AR for project funding.

An ammoniated extract G7 product trial was conducted at G7 Plant 90 to evaluate processability and environmental concerns in support of design of a production process to manufacture ammoniated extract G7 to replace the current G7A process. An extended plant trial is scheduled for the week of June 6.

External and internal sensory evaluations have resulted in no significant difference between ammoniated extract G7 and conventional G7A. Five ammoniated extract G7 products have been prepared via the G7 Pilot Plant for product development evaluation by Applied R&D.