MARCH 23rd, 197

Steering Committee File

C.T.M.C. FARM RESEARCH PROGRAMME - 1977 CROP

The 1977 crop programme will be directed at improvement in the overall quality of Canadian Flue-Cured tobacco.

Experimental trials will focus on two potential quality improvement areas:

1) Agronomic practices
2) Leaf curing

AGRONOMIC PRACTICES

The objectives of these field experiments are considered to be as follows:

(a) to achieve a higher level of leaf nicotine than is currently normal within the varieties included in the field trials.

(b) to improve leaf smoking quality by achieving a higher taste level of desirable quality and a low irritation level. This is assumed achievable only with well ripened tobacco.

(c) to produce plants and leaves with physical characteristics suited to mechanical harvesting and random leaf bulk curing.

Four "large" plots of tobacco will be included in the agronomic trials.

Greenhouse treatment, field preparation, fertilization and planting dates will be the same for all plots.

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The various plots will be planted in replicated strips across the total plot area. (See Attached Field Plan)

GREENHOUSE TREATMENT

- muck sterilized by steaming.
- 12 pounds of 2-16-6 per 100 square feet will be roto-tilled into the top 2 to 3 inches of new and old muck after steaming.
- walls and walk boards will be sprayed with formaldehyde.
- sow sprouted seed (water method) on April 4th at the rate of one ounce per 2,500 square feet.
- use standard watering procedure and greenhouse environment for rearing plants.
- plants to be hardened-off by forking minimum watering and opening up greenhouse.
- treat seed bed with Benlate for damping-off control.

FIELD PREPARATION

- land ploughed to approximately 8" depth and spring-toothed during last week of April.
- soil fumigated, row application with 6.5 gallons of Telone - C17 per acre.
- soil treated with Lorsban 4C at 1.5 quarts per acre, one week after fumigation.

TRANSPLANTING

- target date for commencing transplanting will be May 23rd.
- the first pulling of weak plants will not be used for the experiment.
- plant spacing for all plots will be 48"x20" giving a plant population of 6,534 per acre.

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- all plots will be fertilized with 900 pounds per acre of 3-9-18 at the time of planting. Side dressing of additional fertilizer will be dependant on June rainfall.

Specialized treatment for the various "large" plots is as follows:

PLOT 1 (Control)

- variety V115.
- total area 3.6 acres.
- to be grown in accordance with proper, generally practiced and recommended,
- cultural procedures.
- top at the recommended bud stage and spray for sucker control.
- to be mechanically harvested at the normal times, in 5 passes and random leaf bulk cured.

PLOT 2 (V115 trial)

- variety V115.
- total area 3.6 acres.
- to be grown following the same procedures as for the control plot with these exceptions:

  1) the bottom 4 to 5 leaves will be removed when the plants are just above the knee-high stage or sturdy enough to stand this operation.

  2) top as early as possible leaving 14 to 15 leaves.

  3) machine harvest in 4 passes when leaves are ripened somewhat beyond the normal stage. This should still be within the normal harvest completion date of mid-September.

PLOT 3 (D57 trial)

- variety D57 (high nicotine variety)
- total area 3.6 acres.
- apply the same treatment as used for Plot #2.

Cont'd.....4

PLOT (D76 trial)

- variety Delhi 76.
- total area 5 acres.
- apply the same treatment as used for Plots 2 and 3 with the exception that this plot will be cured in the forced air standard kiln. The tobacco will be machine harvested but will be tied on sticks after manual orientation of the majority of the leaves.

In addition to the aforementioned plots, six acres of V115 will be grown in the same manner as the "control". This tobacco will be used for the cross-flow kiln curing experiment and for filling out kilns of test plot tobacco.

A.Nyilas:nh