

The bottoms of the cartons were removed at the time of transplanting and the plants were watered on several occasions during the hot dry summer. A wire cage was placed over each individual plant for rodent control.

Throughout the summer, shoots developed at various distances from the parent plants. By mid-August the isolated transplants had developed extensive root systems as indicated by the number of new shoots. With the exception of one plant which died, the lateral spread of the transplants was similar and, consequently, only one is discussed.

Four months after field planting, there were 25 shoots arising from one of the original transplants. The nearest shoot was 18 inches from the transplant and the farthest had emerged at 52 inches. The following year, after 14 months, the lateral spread of this transplant had reached 72 inches in one direction. Fifteen months after planting, a shoot was observed at a distance of 114 inches from the parent plant.

The potential spread of this species from a single transplant serves to emphasize the danger of dragging root portions by cultural machinery to field bindweed-free areas.

REFERENCES

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—K. F. BEST,
Experimental Farm,
Canada Department of Agriculture,
Swift Current, Saskatchewan

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NOTE ON CYPRESS, A NEW HARD RED SPRING WHEAT

Cypress, a new hard red spring wheat variety developed through the coordinated efforts of the Project Group on Breeding Spring Wheats for the Prairie Region, was licensed in Canada on May 24, 1962. It possesses a high degree of resistance to the wheat stem sawfly (*Cephus cinctus* Nort.) combined with good milling and baking quality. It is adapted to the dry prairie areas where sawflies and drought are serious hazards in wheat production. Cypress, a potential replacement for the commercial varieties Rescue and Chinook, is superior to Rescue in milling and baking quality and superior to Chinook in resistance to the wheat stem sawfly. Cypress is eligible for the top Canadian grades of hard red spring wheat. The attractive appearance of the grain is a desirable characteristic, especially for the export market.

ORIGIN AND BREEDING METHODS

Cypress originated from the cross Rescue × Chinook made at the Experimental Farm, Swift Current, Saskatchewan, in 1947. The F₂ and F₃ populations were grown in bulk followed by single plant selection in both the F₃ and F₄ generations. The F₃ population was reduced from 2660 to 132 plant lines. Selection in each generation was for superior agronomic characteristics combined with resistance to the wheat stem sawfly.

TABLE 1.—AGRONOMIC DATA ON CYPRESS AND THREE COMMERCIAL VARIETIES OF SPRING WHEAT

Variety	Yield in bu./acre ¹	Bu. wt. in lb. ²	1000-kernel wt. in gm. ²	Height in inches ¹	Lodging resistance 1-9 ²	Days to ripen ²	Stems cut by sawfly in % ³
	40 station- years	64 station- years	40 station- years	7 station- years	34 station- years	50 station- years	13 station- years
Cypress	21.7	65.5	30.0	21.1	3.6	100.0	16
Rescue	21.8	65.1	29.9	22.0	3.8	98.7	18
Chinook	22.1	65.8	32.0	21.6	3.4	99.6	29
Thatcher	23.9	64.8	27.9	21.5	1.9	99.6	62

¹Stations in brown soil zones of Alberta and Saskatchewan²Stations in Alberta, Saskatchewan, and Manitoba³Lethbridge and Swift Current

Preliminary evaluation for yield, sawfly resistance, and desirable agronomic performance, carried on for 5 years at Lethbridge, Alberta, and at Swift Current, Regina and Scott, in Saskatchewan, reduced the number of lines to seven. Cypress, first designated 4352-123 and later C.T. 740, was included in the Cooperative Spring Wheat Yield Trials for 4 years, 1958-1961, inclusive. Performance data are presented in Table 1.

Milling and baking quality was evaluated for 8 years at the Genetics and Plant Breeding Research Institute in Ottawa and also, in the latter stages of the program, at the Grain Research Laboratory in Winnipeg.

A recommendation for application for licence was supported by the Associate Committees on Plant Breeding, Plant Diseases, and Grain Research of the National Research Council and the Canada Department of Agriculture in February, 1962.

Cypress was increased from 200 pounds to 116 bushels during the 1961-62 winter in California and further increased to approximately 4,000 bushels in Canada in 1962. Breeder seed will be available to growers in the spring of 1963.

DESCRIPTION

Spike — Fusiform, mid-long; apically awnletted; glumes mid-long, mid-wide, smooth, white; shoulders square, some slightly elevated and some slightly oblique; beaks mid-wide, acute.

Grain — Kernels ovate to elliptical, mid-long, mid-wide, hard, red; crease mid-wide, mid-deep; cheeks rounded to angular; brush mid-size to large, short to mid-long; germ mid-size, oval; attractive appearance.

Straw — Pithy under most conditions, mid-long, mid-strong, white.

Maturity — Spring habit; medium early, similar to Rescue and Chinook.

Shattering — Resistant.

Lodging — Semi-resistant.

Sawfly reaction — Resistant.

Disease reaction — Susceptible to smut, leaf rust, and race 15B of stem rust; resistant to head discoloration.

Quality — Fully equal to Marquis; eligible for top Canadian grades.

—HUGH MCKENZIE,

—M. N. GRANT,
Canada Agriculture Research Station,
Lethbridge, Alberta;

—A. G. O. WHITESIDE,
Genetics and Plant Breeding
Research Institute,
Ottawa, Ontario;

—D. S. McBEAN,
Experimental Farm,
Swift Current, Saskatchewan;

—E. A. HURD,
Experimental Farm,
Regina, Saskatchewan;

—A. G. KUSCH,
Experimental Farm,
Fort Vermilion, Alberta