Races 201, 202, and 203, all of which are capable of attacking varieties possessing the Bond type of crown rust resistance, were the predominating races in Western Canada and in Ont. and Que. They also occurred in the Maritime Provinces but were relatively less prevalent there. Race 240 was the most prevalent race in the Maritime Provinces.

No races were isolated capable of attacking the varieties Landhafer, Santa Fe, Trispernia, and Victoria. These varieties are the main ones now being used by plant breeders as a source of crown rust resistance.

Isolations from Aecia

In the early summer of 1953 a number of collections of aecia on barberry (Berberis vulgaris) and buckthorn (Rhamus cathartica) were shipped to the Plant Pathology Laboratory, Winnipeg, Man. by cooperators in Eastern Canada. For this assistance acknowledgment is due to the following: A. Payette, Ste Anne de la Pocatiere, Que., J.L. Howatt and S.R. Colpitts, Fredericton, N.B., H.A. Klinck, Macdonald College, Que., J.E. Campbell and R.B. MacLaren, Charlottetown, P.E.I., D.N. Huntley, O.A.C., Guelph, Ont., D.W. Creelman, Kentville, N.S., I.J. Bassett and I.L. Conners, Ottawa, Ont., G.C. Chamberlain, St. Catharines, Ont., T.C. Vanterpool, Saskatoon, Sask.

Aecia on Barberry

On receipt of the collections the aeciospores were inoculated to Little Club wheat, Victory oats, Rosen rye, Agrostis alba, and Poa compressa.

As in other years when similar studies were made var. secalis was the most common. It occurred in 6 of the 9 collections studied. Var. agrostidis occurred in 4 collections, var. tritici in 3 (races 1,15B and 56) and var. avenae in 2 (race 8). Var. poae was not detected in any of the collections. One collection from Fredericton, N.B. contained the 3 varieties tritici, secalis, and agrostidis. Race 15B was from aecia at Ste. Petronille, Isle d'Orleans, Que.

Aecia on Buckthorn

Aecial collections were obtained, in 1953, from both Eastern and Western Canada. The spores from each collection were transferred to oats, rye, Festuca elatior, Lolium perenne, Holcus lanatus, Alopecurus pratensis, and Calamagrostis epigeios.

Three different varieties of crown rust, Puccinia coronata var. avenae, P.c. var. secalis, and P.c. var. festucae were isolated.

The variety avenae was the most prevalent one and comprised about two thirds of all the isolates identified; the variety secalis comprised almost one third of the isolates; and the variety festucae was represented in only two of the collections.

Nine physiologic races of crown rust were isolated from the 22 cultures of the variety avenae established from the aecial collections. These were as follows: 202, 212, 228, 231, 235, 236, 237, 239, and 240.