

Opposite first trifoliolate leaves appeared with a low frequency in WST and 836-9 and were seen occasionally in most F₁ and F₂ families. The absence of this character from all families in which 2466 entered the cross as a female suggests that maternal effects may be present.

Although the absence of controlled crosses of proven parents does not encourage interpretation of an inheritance pattern for the three abnormalities, these data, based on large samplings of parental and progeny populations, may be of general interest and may serve to indicate the frequency of occurrence of these characters.

LONGEVITY OF UREDIOSPORES OF RACE 33 OF UROMYCES
PHASEOLI VAR. PHASEOLI IN STORAGE

Arlen D. Davison and Edward K. Vaughan

Storage of urediospores of the bean rust fungus from year to year will enable bean breeders to test lines for resistance at an opportune time in the breeding program. It has been reported that storage for extended periods is difficult. Results of storage tests in Oregon have shown urediospores will remain viable at least 600 days when stored at -18° C. The germination percentage decreases gradually with time.

Table 1. Effect of temperature and length of storage on germination of urediospores of *Uromyces phaseoli* var. *phaseoli* race 33 and on number of pustules produced per cm².

Storage Temperature (°C)	Periods of Storage (Days)	Mean Germination (%)	Mean Number of pustules/cm ²
4	446-456	0	0
-18	605-615	16	12
-18	389-399	24	43
-18	7-17	84	77

The urediospores were collected in the greenhouse, placed in a corked shell vial which was then placed in a large corked test tube. These tubes were held in a food freezer at -18° C. It is important to place the spores in cold storage within a few hours after collection to avoid a drastic reduction in germination percentage.