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# UI-74, A Small White Bean Resistant to Common Bean Mosaic Virus

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## **UI-74, A Small White Bean Resistant** to Common Bean Mosaic Virus

J. M. RAEDER\*

THROUGHTOUT the years, beans in that area of the state involving the ridges along the Clearwater River in Latah, Nez Perce, Clearwater and Lewis counties. The predominating variety had been a small, flat white bean. UI-1, the chief market for which had been the Caribbean Islands. This market was lost during World War II and because of the dwindling demand for this variety the production of disease-free seed was discontinued. Canning companies are now looking for a source of small white beans for canning purposes and, because of this demand, the growers in the above mentioned area are again becoming interested in the production of beans. S. W. UI-74 was developed and is being distributed to the growers to satisfy the demands of the domestic market.

#### History

UI-74, a small oval round white field bean, is a selection from a cross between Norida, an earlier introduction of the Idaho Agricultural Experiment Station, and a common small flat white bean being grown in the area. Number 74 was selected because of its resistance to the common bean mosaic virus (BMV1) and because of its adaptability to climatic conditions encountered on the ridges of the Clearwater River drainage. It can also be grown under irrigation in

southern Idaho, but because of its susceptibility to the curly-top virus, its production should be limited to those irrigated areas where curly-top is not a problem.

#### Characteristics

The bean requires approximately 90 days in which to set and mature a crop. This short growing period reduces the probability of the coincidental occurrence of maturity date and early fall rainy periods in the Clearwater area.

The plant is a medium bush type from 14-16 inches tall. Seed is of a small oval-round conformation rather than of an oval-flat type, typical of the S. F. W. UI-1. By actual count it averages 187 seeds per ounce.

Site of production will alter this characteristic to a slight extent. Figure 1 depicts the relative size of the two Idaho selections in comparison with Sanilac, a small round bean produced and distributed by the U.S. Department of Agriculture in cooperation with the Michigan Agricultural Experiment Station. The latter variety is not adapted to growing conditions in the Clearwater area.

### **Yielding Ability**

No acre vield tests have been conducted with the variety. However, comparative yield tests have

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been made in comparison with 12 other selections and varieties. Because of its past history S. F. W. UI-1 was included in the tests. During 5 years' tests at Moscow, Latah County, and Leland, Nez Perce County, S. W. UI-74 outyielded all others 4 times out of a possible 8. S. F. W. UI-1 appeared twice in this role. S. W. UI-74 also appeared 7 times among the 5 highest yielding selections and varieties during the 5 years exceeding all others in this respect.

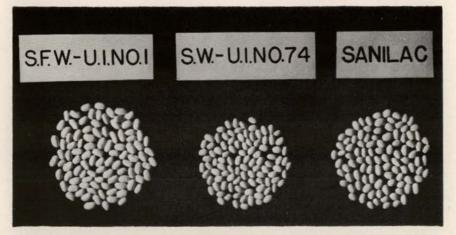


Figure 1.—Comparative size and conformation of the new small white bean UI-74 and two other well known small white varieties.

Table 1.—Comparative	placing	of S. W.	UI-74 and	eleven other selections and
varieties of beans,	based on	yields at	2 locations	involving 5 years' tests.

Rank	1953	1954 Moscow	1955		1956		1957		
	Moscow		Moscow	Leland	Moscow	Leland	Moscow	Leland	
1	741	5	74	1	74	80	1	74	
2	7	1	40	56	1	40	74	1	
3	79	74	7	40	80	5	5	5	
4	5	7	80	80	7	74	40	80	
5	1	29	29	5	40	56	7	7	
6	40	40	68	74	5	7	29	40	
7	56	79	1	7	56	1	80	29	
8	29	56	5	79	29	Sanilac	Sanilac	Sanila	
9	Michelite								

<sup>1</sup> Numbers refer to number of selection. All are small white beans.

COVER PHOTO-Bean plots on the Wilkins farm, Leland, Idaho.