

## WANSER AND McCALL

hard red  
winter wheats  
for  
low rainfall  
areas

Wanser and McCall are hard red winter wheats developed for low-rainfall areas of Washington. Both varieties yield as well as Gaines in areas that have less than 11 inches of annual rainfall.

The two varieties can be distinguished by chaff color. Wanser has a brown-chaffed head; McCall a white-chaffed head. Both have bearded, common-type heads and medium-height straw that resists lodging.

### Recommended Areas

Wanser is recommended for the southern half of the Big Bend. Its superiority over

McCall in stripe rust tolerance and winter hardiness is important for maximum production.

McCall is well adapted to the northern section of the Big Bend area—including Douglas, Grant, and Lincoln counties. McCall is superior to Wanser in both snow mold tolerance and emergence from deep seedings—two qualities important to production in this area.

### Performance

**WINTER HARDINESS:** Wanser is as winter hardy as Itana. McCall has good winter hardiness, though less than Wanser. Both Wanser and McCall are more winter-hardy than Burt, Gaines, or the club wheats.

**SHATTERING AND THRESHABILITY:** Wanser and McCall are more shatter resistant than Burt. They will shatter more than Itana, but are easier to combine and thresh clean.

**MILLING AND BAKING QUALITY:** Both varieties compare favorably with Itana in milling and baking characteristics. Wanser mills somewhat better than McCall. McCall has slightly better bread-baking quality than Wanser or Itana. Neither is suitable for production of soft white wheat products.

### Yielding Ability

Wanser and McCall have higher yield potential than Itana, Columbia, or Cheyenne. Their potential is equal to that of Burt in the recommended areas.

COMPARATIVE YIELDS  
WANSER, McCALL, OTHER VARIETIES

Variety	Lind	Pullman- Pomeroy	Washington, Idaho, Oregon
	bushels per acre		
McCALL	45	63	47
WANSER	43	62	48
Gaines	46	69	—
Burt	41	61	—
Itana	41	55	41
Turkey	36	56	39

\* Late seeding.

### Disease Resistance

**STRIPE RUST:** Wanser has better stripe rust resistance than McCall, and both have more resistance than Itana. Both Wanser and McCall are susceptible in the seedling stage, but become more resistant as they mature and temperatures rise.

**SNOW MOLD:** McCall has some tolerance—more than Omar—to snow mold. Wanser is susceptible, as Itana and Burt are.

**FOOTROT AND ROOTROT:** Both Wanser and McCall are susceptible to the footrot and rootrot organisms.

**SMUTS:** Wanser and McCall are resistant to all known kinds of common smut and most kinds of dwarf smut. While both varieties are more susceptible to dwarf smut than Burt, they are resistant to the types now common in Washington.

## Management

**SEEDING:** Wanser and McCall can be seeded early. For maximum yields, seed between August 20 and September 15. Plant 40 to 45 pounds of seed per acre.

Both varieties can be seeded late (after October 1). For late seedings, plant 60 pounds of seed per acre.

Because they mature early, Wanser and McCall have an advantage over other varieties when seedings are late.

Treat seed for smut control with hexachlorobenzene (HCB) at 2 ounces per 100 pounds of seed, or with other effective seed treatment material at the manufacturer's recommended rate. Seed treatment will help hold down development of new smut types.

Treatment with an insecticide to guard against wireworm damage is a good investment on late seedings.

**FERTILIZATION:** Wanser and McCall should be fertilized at the same rates as Burt and Itana.

On deep soils, increasing normal rates of nitrogen by 30 to 40 pounds may increase protein and improve quality. So far, however, protein premiums have not been high enough to justify the increase.

**WEED CONTROL:** Since Wanser and McCall germinate and emerge rapidly from deep seedings, they are competitive with cheatgrass and other fall annual weeds. They are taller varieties than Gaines, so they also compete well with cheatgrass in the spring.

They both appear to be as tolerant of 2,4-D as other varieties.

## Development

Wanser and McCall were developed at the Dryland Research Unit of Washington State University at Lind, from a Burt x Itana cross made in 1952. Selections 34 and 125 were made by Walter Nelson, Superintendent of the Dryland Research Unit, in 1958. Selection 34 was named in honor of H. M. Wanser and Selection 125 in honor of Dr. M. A. McCall. The two men are former superintendents of the Dryland Research Unit.

Foundation seed of both varieties was released in 1965.

This circular was prepared by Walter L. Nelson, Superintendent, Dry Land Research Unit at Lind; and Kenneth J. Morrison, Extension Agronomy Specialist; Washington State University, Pullman.

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