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Hillsdale Wheat  
Michigan State University  
Cooperative Extension Service  
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# Hillsdale Wheat

- Superior winter hardiness
- Very good milling characteristics
- Yields of 100 bushels or more per acre
- Good lodging resistance
- Resistant to powdery mildew

**H**illsdale is the first soft red wheat variety released from Michigan State University and is first available to growers for 1984 planting. It is named for the city of Hillsdale, the site of one of the early grist mills in Michigan and a milling center since 1837.

## History and Pedigree

Hillsdale was an F<sub>5</sub> selection made in 1976 from the cross Asosan/Genesee<sup>4</sup>//VA66-54-10. Pedigree selections for powdery mildew, height and plant type were made from F<sub>3</sub> and F<sub>5</sub> headrows; winter hardiness and postharvest dormancy were evaluated in the F<sub>4</sub> and subsequent generations; selection for milling and baking quality was made from F<sub>5</sub> headrows.

Seeds from approximately 700 phenotypically similar headrows were increased individually in 48 sq. ft.

plots, rechecked for plant type, height, glume color, maturity, kernel color and bulked as breeder's seed.

## Yield Performance

Hillsdale has the same outstanding yield potential that Michigan wheat growers have come to expect from the soft white varieties, Augusta and Frankenmuth. Hillsdale was evaluated in advanced nurseries from 1978 through 1983 and in the uniform Eastern Soft Red Winter Wheat Performance Nursery in 1982 through 1983. In 41 nurseries at 8 locations in Michigan, it outyielded 'Arthur' by 21% and performed at about the same yield level as Augusta and Frankenmuth. Testing now promises potential yields upwards of 100 bushels per acre.

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Hillsdale  
Hillsdale  
Hillsdale  
Wheat

## Disease and Insect Resistance

Hillsdale has excellent field resistance in Michigan to the natural occurring biotypes of powdery mildew, *Erysiphe graminis*. It has no Hessian fly resistance, and therefore should be planted 10 days after the fly-free date.

## Agronomic Description

Hillsdale is a soft red winter wheat variety with apical awns, brown glumes at maturity and a rather large, slightly tapering head. Time of heading is at the same time as Augusta and Frankemuth and 6 days later than Arthur. Hillsdale is 101 cm in height. The variety closest in appearance is Frankemuth which is 3 cm taller, has white

seed and is resistant to Race A and C of Hessian fly. It has good seed size with kernel test weight similar to Genesee and Frankemuth. Like most other soft red varieties, Hillsdale has good postharvest seed dormancy that resists sprouting during wet weather prior to harvest.

## Milling and Baking Quality

Hillsdale has very good milling and baking qualities due to easy separation of bran and endosperm. Hillsdale has excellent cake and cookie baking characteristics.

## Plant Variety Protection

Variety protection has been applied for under the Plant Variety Protection Act, Public Law 91-577 in accordance with the certified seed option, stipulating that Hillsdale may be sold only as a class of certified seed. **Thus, growers who buy certified seed may not legally sell the following generations as year from certified Hillsdale.** This provision is expected to better maintain varietal identity of Hillsdale and help control serious seedborne diseases such as bunt (stinking smut) and loose smut.

## Seed Availability

Certified seed of Hillsdale will be marketed exclusively in Michigan by Lakeside States, Inc., an association of Michigan certified seed producers. All seed will be marketed in 50-lb bags with a standardized format. Additional quality control checks have been established by Lakeside States to assure uniformly high quality.

All Michigan certified seed is produced under rigid standards of varietal purity and freedom from seedborne diseases by members of the Michigan Crop Improvement Association. All seed lots are required to meet high standards of germination and freedom from other crop seeds, weed seeds and inert matter. Wheat growers should be assured of varietal identity and high seed quality by checking for the familiar blue certified seed tag before purchasing their seed.

By

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