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Ionia Wheat: A New Soft, White Wheat for Michigan  
Michigan State University  
Cooperative Extension Service  
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# IONIA WHEAT

*a new soft, white  
wheat for Michigan  
— rust and fly resistant*

COOPERATIVE EXTENSION SERVICE  
MICHIGAN STATE UNIVERSITY

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## IONIA WHEAT

Ionia is a new soft white winter wheat released by Michigan State University with several desirable characteristics:

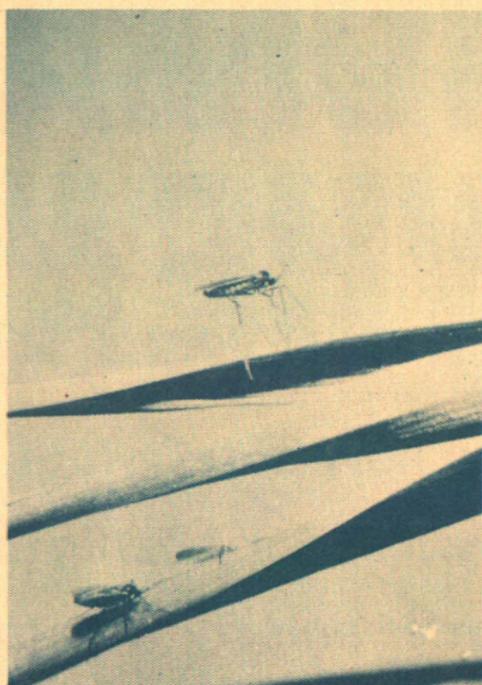
- higher yield
- rust resistance
- Hessian fly resistance
- excellent milling quality

### TOP YIELDS

Michigan wheat growers can expect top yields from Ionia, recently developed by the Michigan Agricultural Research Station. Ionia is a Genesee-type wheat obtained by backcrossing Genesee, a soft white winter wheat, and Red-coat, a soft red winter wheat. Ionia yielded an average of eight percent more than Genesee in 28 tests conducted by MSU in eight Michigan counties over five years.

### DISEASE AND INSECT RESISTANCE

Unlike Genesee, Ionia is resistant to race "A" Hessian fly and to the races of leaf rust currently prevalent in Michigan. In tests where leaf rust was present, Ionia out-yielded Genesee by 10 to 13 percent.



Female Hessian Fly on Wheat Leaf. Ionia is Resistant to Hessian Fly Race "A".

## MILLING QUALITY

Tests by the USDA Regional Soft Wheat Quality Laboratory at Wooster, Ohio, and the Michigan State Miller's Association have shown that Ionia has the same high pastry quality as Genesee.



## COMPARISON SUMMARY

1966 - 1970<sup>1</sup>

Variety	Race "A" Hessian fly Resistance	Straw Height (in.)	Test Weight (lbs.)	Yield (bu/a)	Yield (% of Genesee)
Ionia	Resistant	42	58.7	58.2	108
Genesee	Susceptible	43	58.8	54.0	100
Yorkstar	Susceptible	38	55.2	55.6	103
Avon	Susceptible	42	58.2	52.8	98
Arthur <sup>2</sup>	Resistant	36	60.2	55.8	103

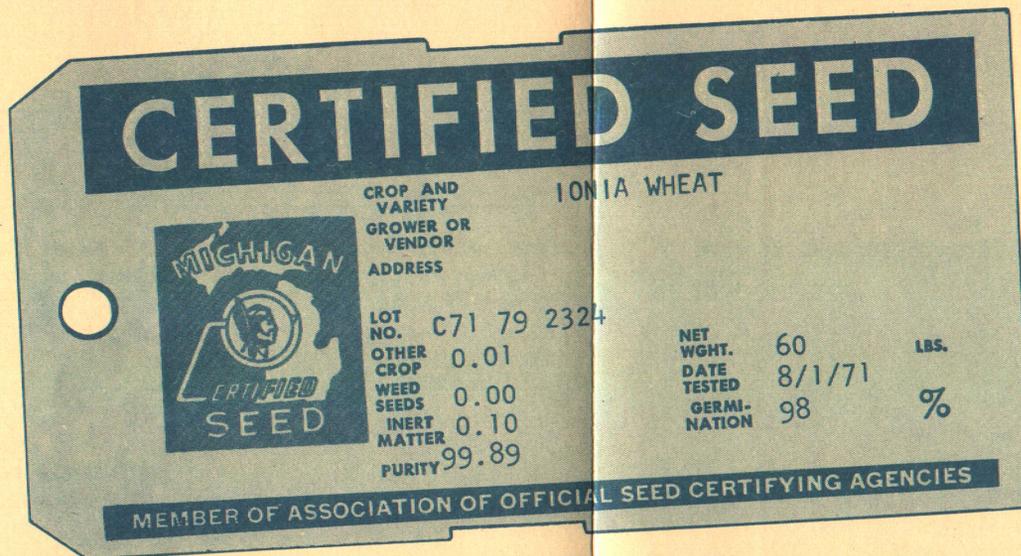
<sup>1</sup>Data from 28 nurseries in Berrien, Monroe, Lenawee, Kalamazoo, Ingham, Tuscola, Ionia and Huron Counties.

<sup>2</sup>A red wheat shown for comparison only.

## SEED SUPPLIES

Certified seed produced in 1970-71 is available to commercial growers for 1971 fall planting.





## FIVE STEPS TO BETTER YIELDS

1. USE CERTIFIED SEED - Certified seed assures high quality seed of known genetic purity. The standards for Certified seed are administered by the Michigan Crop Improvement Association, as outlined by the Seed Law of the State of Michigan.
2. PLANT AS RECOMMENDED - Plant as soon as possible after the fly-free date. Check with your local Cooperative Extension agent and/or seedsman for the fly-free date<sup>1</sup> in your area. Plant the seed at proper depth in a good seed-bed. Plant at the recommended rate of seed per acre under adequate soil moisture conditions to assure proper seed germination and seedling establishment.
3. MAINTAIN OPTIMUM FERTILITY - Soil tests provide the best guidelines for fertilizer requirements. Nitrogen, phosphorus and potassium are the three elements most often needed in Michigan soils. The soil test also indicates whether additional minor elements are necessary. Manganese may be needed on some Michigan soils.
4. CONTROL WEEDS - Use of certified seed is a step toward control. However, good seed should be supplemented with herbicides and cultural practices. Refer to Extension

Bulletin E-434, available at your county extension office, or by writing the MSU Extension Bulletin Office, Box 231, East Lansing, Michigan 48823.

5. USE CARE IN HARVESTING - Wheat is ready to harvest at about 13 percent moisture. Lower moisture can cause mechanical damage, while a higher moisture content reduces storability unless the seed is artificially dried. Follow the recommendations in the combine owner's manual regarding cylinder speed and clearance, and operating procedures.

<sup>1</sup>The "fly-free date" is the date when the Hessian fly eggs have been laid on other grassy plants. Wheat emerging after this date escapes the damage caused by the larva, which hatch from the eggs.

## ACKNOWLEDGEMENTS

Ionia was released by the MSU Departments of Crop and Soil Sciences, Entomology, Botany and Plant Pathology and rated jointly by the ARS Crops Research and Entomology Research Divisions of the USDA, and the Michigan Miller's Association.