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Evaluation of Wheat Varieties for Certified Organic Production--Neely-Kinyon Trial, 2003

Abstract

The increasing demand for organic products from consumers has resulted in continuous growth in the organic industry. Organic wheat is an indispensable ingredient in many processed organic products. This variety trial evaluated the production of soft red, hard red, and soft white wheat in southwest Iowa.

Keywords Horticulture, Agronomy

Disciplines

Agricultural Science | Agriculture

Evaluation of Wheat Varieties for Certified Organic Production—Neely-Kinyon Trial, 2003

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Introduction

The increasing demand for organic products from consumers has resulted in continuous growth in the organic industry. Organic wheat is an indispensable ingredient in many processed organic products. This variety trial evaluated the production of soft red, hard red, and soft white wheat in southwest Iowa.

Materials and Methods

Varieties selected for the 2003 organic wheat variety trial included the following: Kaskaskia (soft red), Wahoo (hard red), Pioneer 25W33 (soft white), and P25W60 (soft white). Plots measuring 20×40 feet were laid out in a completely randomized block design with 4 replications. Wheat was planted with a small grain drill on October 18, 2002, at 75 lb/acre, with crimson clover frost-seeded into wheat plots at 10 lb/acre on March 27, 2003. Clover was planted in keeping with the requirement for a soil-building cover crop within the crop rotation scheme for certified organic production. A disease rating (1 = minor disease pressure,4 = severe pressure) was assigned on June 19, 2003. All wheat varieties were harvested on July 25, 2003.

Results and Discussion

Kaskaskia had significantly greater disease pressure compared with Wahoo and P25W60 (Table 1). The Pioneer variety P25W33 was intermediate in disease pressure. There were no significant yield differences among varieties, with organic wheat averaging 65 bushels/acre (Table 1).

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Table 1. Organic wheat variety trial, Neely-Kinyon, 2003.		
Variety	Yield	Disease rating ^z
-	(bu/acre)	_
Kaskaskia	57.18	3.19b
Wahoo	68.19	1.63a
P25W33	66.71	2.50ab

66.48

NS

1.79a

1.03

^z 1 = Minor disease; 4 = Severe disease.

P25W60

LSD 0.05