

Kansas Agricultural Experiment Station Research Reports

Volume 0
Issue 12 *Keeping up with Research*

Article 102

1983

Proso Millet as a Crop Alternative (1983)

Merle D. Witt

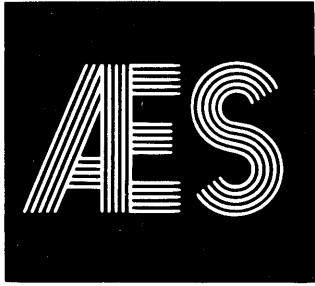
Follow this and additional works at: <https://newprairiepress.org/kaesrr>

Recommended Citation

Witt, Merle D. (1983) "Proso Millet as a Crop Alternative (1983)," *Kansas Agricultural Experiment Station Research Reports*: Vol. 0: Iss. 12. <https://doi.org/10.4148/2378-5977.7339>

This report is brought to you for free and open access by New Prairie Press. It has been accepted for inclusion in Kansas Agricultural Experiment Station Research Reports by an authorized administrator of New Prairie Press. Copyright 1983 the Author(s). Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned. K-State Research and Extension is an equal opportunity provider and employer.





Keeping
Up With
Research
70

April 1983

Proso Millet as a Crop Alternative

Merle Witt, Crop Research Agronomist

Proso millet (*Panicum miliaceum*) has the lowest water requirement of any grain crop. Proso, sometimes called "Hershey millet" or "Hog millet," was at one time grown on considerable acreage throughout the Great Plains. Locally adapted grain sorghums largely have replaced it. Proso is receiving new attention as a short season grain crop because of acreage restrictions and limited crop alternatives.

Proso remains a part of the cereal diet of many people in Asia and Africa and has been exported from the West Coast. It is an important ingredient in many commercial bird feeds. Also, it is being used successfully in cattle-fattening rations. Improved varieties and better cultural practices could increase proso's importance as a feed grain in the cattle industry of this region.

Results

A 2-year comparison of proso with grain sorghum was conducted at Garden City. Crop performance results are shown in Table 1. Data indicate the average grain yield level of proso to be about half that of the shortest season sorghum hybrid (NK Mini-Milo). However, in spite of similar mid-bloom dates, the prosos have a more rapid grain-filling period so

AGRICULTURAL EXPERIMENT STATION

Kansas State University, Manhattan
John O. Dunbar, Director

Table 1, Proso millet and grain sorghum agronomic data, 1981-82.

	Grain Yield (lbs/A)			Days to Bloom	Plant Height
	1981	1982	2-yr. av.	(av.)	(av.)
<u>Proso Varieties</u>					
Cope	1,461	1,689	1,575	50	22
Abarr	1,382	1,360	1,371	50	18
Minco	1,061	1,581	1,321	49	19
Pan-handle	998	1,559	1,278	50	21
Minn 55	972	1,406	1,189	49	16
Cerise	533	1,396	965	48	18
Mean	1,067	1,498	1,283	49	18
L.S.D. (.05)	435	n.s.			

<u>Sorghum Varieties</u>					
NK Mini Milo	2,520	2,865	2,692	50	34
NC + 160	3,081	4,206	3,643	60	43
Mean	2,801	3,535	3,167	55	38
L.S.D. (.05)	502	925			

that they are mature for harvest a week sooner than even the extremely short season sorghum. Thus, the prosos mature in such a short season that comparable length maturity sorghums are not available.

Water use by these two crops is shown in Table 2. The data show that water use by proso is minimal. Proso, like other crops, is most productive where

Table 2. Water use of proso and grain sorghum, 1981 -82.¹

Crop	Seasonal Water Use (inches)		Water Use Efficiency (lbs grain per inch of water used)	
	1981	1982	1981	1982
Proso	8.1	11.1	132	135
Sorghum	15.8	15.2	177	233

¹Soil moisture used plus rainfall.

moisture is fairly abundant, but proso is most competitive with other crop choices when moisture and season length are limited.

Conclusions

In all but perhaps the most dry short season areas of Kansas, proso should be considered for use as an emergency crop but not as a part of a regular rotation. Under average conditions, sorghum will out-yield proso if it can be sown at the proper time with adequate season length available. Proso matures in 60-75 days with very little water. Thus its primary use is that of a "catch crop."

Contribution 83-79-S, Garden City Branch
Experiment Station

Agricultural Experiment Station, Manhattan 66506



Keeping Up With Research 70 April 1983

Publications and public meetings by the Kansas Agricultural Experiment Station are available and open to the public regardless of race, color, national origin, sex, or religion. 4-83—3M