

box about 10 or 12 feet in length, with a wire screen fixed in the middle. Balance this box on a log and place in one end of it as much grain as can be covered with liquid, and while that is soaking put grain in the other end and then tip so that liquid will drain through the screen. This method permits the removal of smut balls by skimming them from the surface of the liquid.

EFFECTS OF TREATMENT.

The longer grain is kept after treatment the more it deteriorates in vitality especially if stored without being dried. In sowing grain just treated the drill should be opened a little more to insure the usual amount being sown. Germination is slightly retarded by treatment, but the growth is strong after the roots are established. There is an increase in the yield as well as a higher grade of grain from treated seed as indicated by the following extract from the report of the Indian Head Experimental Farm for 1895.

TEST OF BLUESTONE AS A PREVENTATIVE OF SMUT.

"In this test 1-10th acre plots of summer fallow were sown by drill on April 17th."

"The result of the test of sowing very smutty seed proves the efficiency of bluestoning as a preventative of smut. While the untreated was more than one-half smut, the product of the same seed treated contained 40 times more good than smutty heads; the yield per acre was also greater from the treated, being 36.3 bushels of No. 1 hard wheat, while that from the untreated was 17.4 bushels of grain and smut unfit for feed or market."

Name of Variety	Date of Ripening	No. of days Maturing.	Length of Straw	Character of Straw	Length of head	Weight of Straw per acre	Yield per acre	Weight per bushel	Good and Smutty heads on 6 ft. square of plot.	
			Inches		Inches	Lbs.	Bush. lbs.	Lbs.	Good	Smutty
Good seed from treated crop, 1894—										
Red Fife, sprinkled, 1 lb. to 8 bus.	Aug. 28	133	47	Soft	3½	6,310	40	60½	1,709	5
Red Fife, dipped, 1 lb. to 8 bus.	Aug. 28	132	49	"	3½	6,500	42	60½	1,525	0
Red Fife, untreated	Aug. 28	133	18	"	3½	6,000	40 10	61½	1,589	31
Smutty seed from untreated crop, 1894—										
Red Fife, 1 lb. to 8 bus.	Aug. 31	136	40	"	1½	590	36 30	60	1,626	11
Red Fife, untreated	Aug. 31	136	48	Fair	4	580	17 10	48	718	833

SOME HINTS FROM THE INDIAN HEAD EXPERIMENTAL FARM.

Only clean plump wheat is used for seed in the field crops.

It is tested for germination.

It is treated for bluestone.

Such crops have shown no smut in 16 years.

Small test plots sown with very smutty untreated wheat have grown grown over 50% smutty heads.

Treating such very smutty seed never resulted in an entirely clean crop.