

Field Notes

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Johnny Saichuk



To drain or not to drain, that is the question. At least that is the most frequently asked question of late. I have had many experienced rice farmers tell me they consider that decision among the most difficult managerial decisions they make in the course of the crop year.

The simple recommendation is illustrated at right. In the panicles at left 2/3 to 3/4 of the grains are straw colored which represents the appearance desired when draining a silt loam soil. If rice is grown on clay soils or on hard to drain fields we recommend draining when 1/2 of the grains on the panicle are straw colored as is shown in the panicles at right in the photograph.

If it was that simple I would not be writing this and I would not have the calls I had about draining. Every year these calls come in, but the uneven crop that is prevalent this year apparently has added another factor into the equation.

I have experimented with a high moisture meter for the past few years to try to come up with a more analytical method of determining drain time. In our verification fields we take a sample at the stage we think is stage at which we should drain. Most of the samples are in the 32% to 36% moisture range. However, sampling method, sample size, time of day of obtaining the sample and other variables have prevented us from making a recommendation based on grain moisture. We still use grain color change. A discussion of this meter and its use is on the next page.



Back in school there were two types of questions on exams; subjective and objective. The objective questions were answered with an absolute value such as True or False or a single answer from a multiple choice scheme. Subjective questions are those that require thought and composition of those thoughts into sentences. Because of the variability of our thought processes there can often be more than one correct answer to a subjective question. That is the case here. This is a classic example of a subjective question.

Here are some of the things we take into consideration in the verification program:

Is the field easy to drain or difficult to drain? The more difficult the earlier you drain.

Is the long range weather forecast wet or dry? Wet, drain sooner; dry hold water longer.

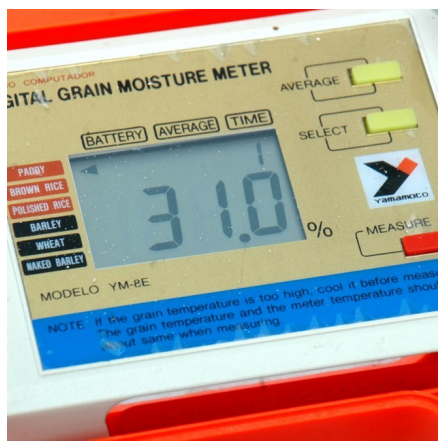
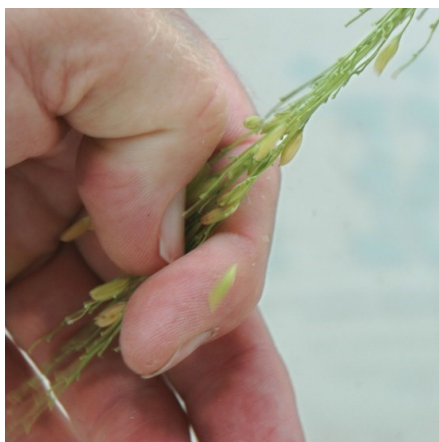
Is the combine equipped with tracks or tires? Tracks, can hold water longer.

Is a second crop planned? Draining too soon in hot, dry conditions can result in death of the stubble. Draining too late can result in severe rutting.

Does the variety tend to shatter? Early hybrids shattered easily therefore we drained earlier.

Is the field even in maturity? Even, drain earlier; uneven, hold water longer.

Will the grower dry the rice himself? If yes, can hold water longer; if no, then drain sooner.



Above are a series of photographs that illustrate the methodology we use to take a high moisture sample to determine drain timing.

First we select a dozen or so panicles we feel represent the field well. Then we beat those panicles into a bucket. If the rice was ready to harvest we would be able to remove nearly all of the grains from the panicle, but green rice retains many grains. We then hand strip the remaining grains from the panicle. All grains are mixed and a random sample is taken.

These grains are then placed in the small hand grinder that is provided with the meter. A sample of the ground grains is then placed into the meter per instructions that accompany the meter. A moisture reading is then obtained.

As you can see the very small sample size makes sampling very critical which is why we have not yet recommended this method for growers. Multiple samples per field would increase accuracy as would the ability to measure the moisture in a larger sample. We often repeat the sample to gauge the uniformity of the readings. More uniform readings indicate more accuracy and provide more confidence in the number.

This meter is much more expensive than the typical portable grain moisture meters used at harvest. Those meters (we use them too) cannot read moisture much above 20% with accuracy.

I hope this answers some questions. If you need more help do not hesitate to contact your local county agent.