

skin. Color tends to reflect the weather conditions which prevailed around harvest time. Pale color indicates unduly rapid ripening (common in dry areas). A dark hue frequently results from unfavorable harvest weather with too much rain and too little sun. Pronounced staining may damage the germination of the grain, apart from the fact that the normal maturing will have been interfered with. Very wet weather may cause pregermination, a proportion of embryos being damaged or even killed when the grain is dried and stored. Damp grain is an ideal host for the growth of mold bacteria.

If the skin is coarse (thick skinned), it is probable that too much nitrogen has been taken up, likely as a result of unwise use of nitrogen fertilizers. A cross section of these barley kernels shows a gray or steely appearance in the endo-

sperm, and these do not malt well. The ideal is a thin-skinned, slightly wrinkled sample which, when cut crosswise, appears white and mealy in the endosperm. It may be noted that the terms "thick" and "thin" applied to the barley husk refer to visual impressions rather than to actual measurements.


The care which has been used in threshing is very important. Damaged kernels make ideal substrates for mold growth on the malting floor and while broken kernels can be removed by screening, kernels damaged at the tip cannot be separated. It is also not desirable that long lengths of awn should be left attached to the grain or that fragments of rachis with attached kernels should be present. The color, uniformity of grain size and evidence of threshing damage are of outstanding value in the assessment of quality.

**Literature Cited**

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