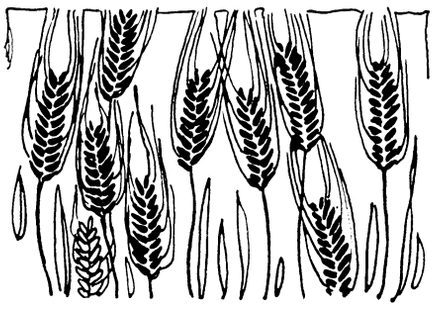
AGRICULTURE

NATURE RAMBLINGS

by Frank Thone



Bread From Snow

➤ A LARGE SHARE of our wheat crop, and smaller proportions of other small grains, are fall-sown. The seed germinates soon after sowing and the young grain usually makes a good growth before cold weather arrives to check it. Then it stands, with its life-fires banked, until returning warmth in spring gives it leave to grow again.

Highly important, during these months of suspended activity, is the protection afforded by a good blanket of snow. Farmers feel at ease if they cannot see their wheat from December until March; if the green becomes visible through the white they begin to worry.

Snow benefits winter grain in several ways. For one thing, although the white blanket does not keep things under it really warm, in terms of human comfort, it does maintain a somewhat higher temperature than that of the outer air. And what is perhaps of even greater importance, it prevents wide and rapid temperature swings such as take place outside.

The common figure of speech that likens snow to a blanket is really quite apt, despite its triteness. Snow influences temperature exactly as a good woolen blanket does: it interposes a mass of small, imprisoned air spaces between the object which it shelters and the cold of the outer air into which heat would otherwise be lost by radiation. When snow is partly converted into ice by thawing and re-freezing it loses much of this insulating value—a glazed field is a field in danger.

Another useful function of snow cover is the protection it gives against evaporation. The atmosphere within a snowbank is very humid, so that the covered plants have little demand made upon their water content—precious because irreplaceable so long as the soil remains frozen and the roots are out of action.

While snow is over the ground, the restless "heaving" that comes when soil is alternately thawed and frozen is suppressed. When heaving takes place in an uncovered field, the exposed wheat plants are likely to have their roots torn off, and are often turned upside down into the bargain.

The final benefaction of a good snow cover comes with the spring thaw. Most of the snow water sinks slowly into the soil right where it is, becoming immediately available for the needs of the newly thirsty, rapidly grown plants. The abundance of July's harvest is thus largely determined in January.

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