MCIC's soil productivity index and assessed value can be based on different factors

Coverage begins with the soil

The MCIC Soil Productivity Index

by Doug Wilcox, MCIC

Soil classification systems of one sort or another have been used in Manitoba for many years. A systematic classification of Manitoba soils was started in the 1930's by the Manitoba Soil Survey. The soil survey classification groups soils by morphological features. Under this system soils are given names such as Red River, Souris, or Newdale, and the information is used by engineers, foresters, recreation planners, assessment staff, as well as crop producers. However, it is difficult to be all things to all people, and as a result at various times Manitoba institutions such as land assessment, farm credit, and crop insurance have had to develop alternative soil classification systems specific to their needs.

In 1960, when production insurance was first offered by Manitoba Crop Insurance Corporation (MCIC), townships were the basis for establishing rates and coverages. The result of this was sand ridges were being insured for the same coverage and rate as finely textured clays with good water retaining properties. This lead to farmer complaints. It was realized then, that in order to have an equitable program, coverage would have to relate to the productivity of the soil.

MCIC started collaborating with Manitoba soil professionals in the early 1960's to develop a custom soil classification system that reflected crop productivity potential for crop insurance purposes.

The result is the current MCIC system where each risk area in Manitoba can have up to ten soil classes (A to J) with the soil survey soils expected to have the highest yields being classified as A and the lowest yielding soils being rated as J. After yield history, the main factors used in establishing the productivity rating of a soil for MCIC purposes are the soil properties (texture, organic matter, topsoil depth, salinity, stoniness), climate (temperature, moisture), sensitivity (flooding, drought, erosion), hydrology (internal drainage, surface runoff, proximity to bodies of water), and terrain (landforms, substrata).

It is important to note that in the MCIC system a soil class in one risk area does not necessarily have the same productivity as the same soil class in another risk area. For example a D soil in Risk Area 12 (D12) would have a different yield potential than a D soil in Risk Area 6 (D6).

Generally, the relationship between the soil productivity index and the average yields is quite good. As the example in Figure 1 shows, as the soil productivity rating decreases the average yield also decreases. MCIC has given all agricultural land in Manitoba it's own soil productivity rating for coverage purposes. An example map illustrating this for the RM of Lorne is shown in Figure 2.

The MCIC soil classification system is simple, practical and easily understood. This means that whether you are a producer, realtor, or some other individual involved with land in Manitoba, you are more likely to want to know the MCIC soil productivity classification of a field (e.g. B6) than the soil survey classification (e.g. Newdale).

MCIC staff are often asked why assessment rankings sometimes differ from MCIC rankings. The main reason for the

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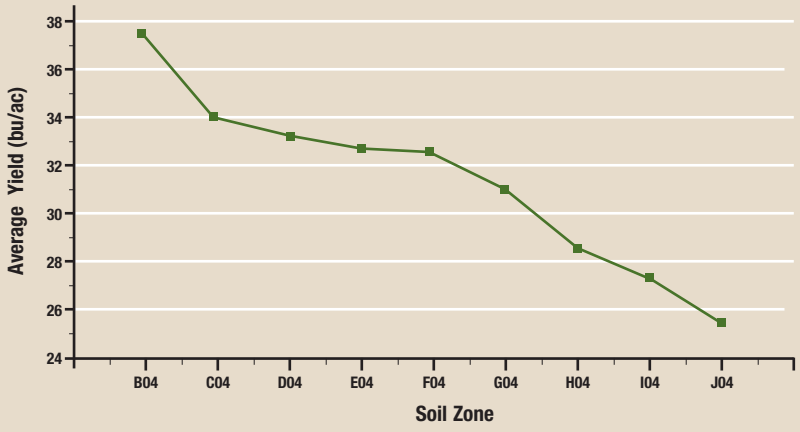
Figure 1. RS wheat probable yield for each soil zone in RA 4



difference is that the assessor has to put a dollar value on the land whereas MCIC has to assess the capability of the land to grow a crop. The relationship between the two is not always good; the assessed land price does not exclusively reflect the productivity of the land.

When assessing land value, supply and demand comes into play; it doesn't for MCIC's soil productivity index. Other distinctions are that MCIC's soil productivity index covers only cultivated and potentially cultivatable land, whereas assessment covers all acres.

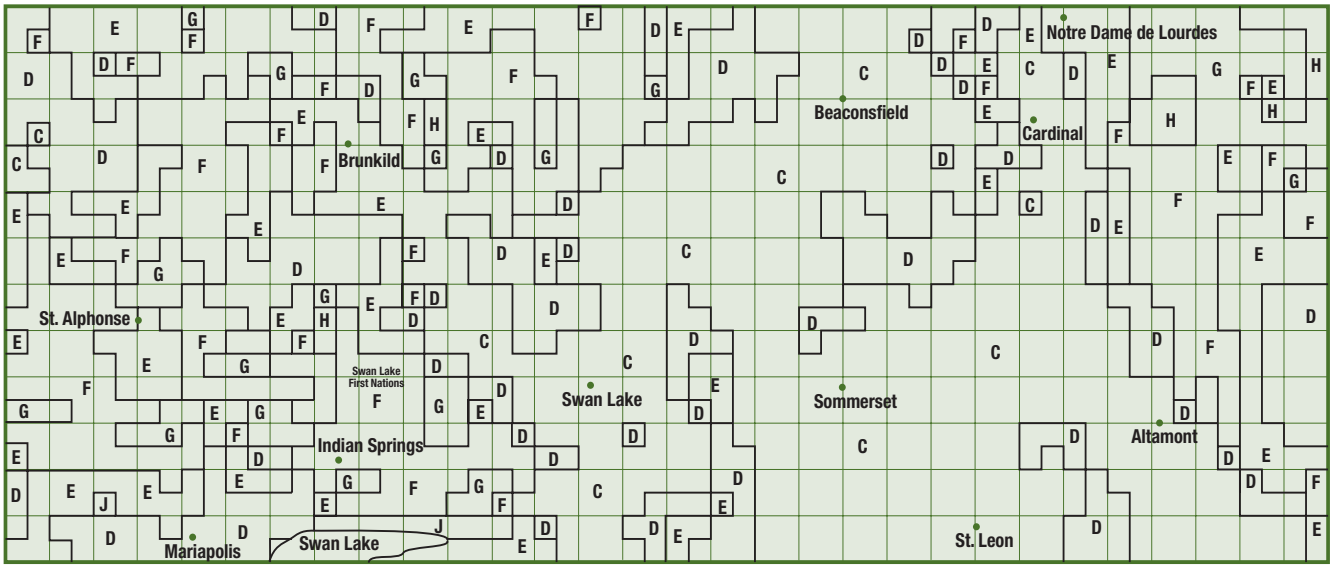
Additionally, the nearness of the land to good roads and towns can impact assessment values, but not MCIC's soil productivity index. Another consideration is that the workability of the land doesn't affect MCIC's soil productivity index but does impact assessed value (e.g. does a road, river or tree line going through the field). With this knowledge it should be clear that a difference between an assessment ranking and an MCIC ranking does not mean either is wrong — it simply means that each is considering different factors.

If you have a fields you feel that MCIC may have classified incorrectly then a reinspection by MCIC can be carried out. Your local agent can walk you through a "Soil Zone Reinspection Questionnaire" to see if a re-inspection is warranted.

If warranted, a MCIC Soil Scientist will come out and complete a field inspection. Field inspections are important because a professional interpretation may be required beyond the information available from a soil survey map.

Municipality of Lorne

Figure 2.



Note: All land on this map is located within risk area 5.