



Productivity from the land

Food. Food for people. Feed for livestock. The production of agricultural products for export. Agriculture is the core renewable resource in every country. Often, it is the most difficult national activity to manage effectively. Through remote sensing, agricultural managers can now have new and powerful levels of control at their fingertips.

Analysis, planning and management are all dependent upon information. Soils, crops, acreage planted, moisture, crop health and diseases, weather, market conditions and timing of harvests, stress analyses — information on these factors and conditions is essential to generating improved productivity from the land.

Getting the picture is now possible

The new tools for agriculture now include the application of remote sensing techniques to every-day and longer-range decision-making and fore-

Canadian systems and software are in use worldwide for display and interpretation of remotely sensed and conventionally acquired data.

Indonesia: Southern Sumatra.
Suitability of terrain for coffee growing.

casting. Data obtained from aerial and satellite overflights are verified against known conditions at ground level. The results provide information on a scale not previously possible. An entire nation can be "mapped" repeatedly in this way. So too, the valuable information from an individual farm holding or even a single field can be displayed and interpreted.

Repeated flights and subsequent images from satellites enable vital comparisons to be made. Decisions can be made in time for critical action to be taken.

Different crops reflect light in different ways. Even the same crop reflects light differently, depending on its stage of growth and on its health. Revisits show the changes. The ability to display, manipulate and interpret those changes puts power in the hands of the agricultural manager.

The technology is affordable

Affordable desk-top microcomputers and analysis systems, including advanced Canadian-developed, special-purpose software, provide complete facilities for operational resource management applications.

Data from many sources can now be integrated. These include topographical surveys, geophysical inventories, field data, satellite and airborne source information. Production and interpretation of complex images are now a working reality for solving agricultural problems.

Canadian experience and know-how easy to access

Canada is one of the world's most productive agricultural producers and exporters. That leadership is maintained by constant research at all levels of the agricultural process — including testing the new remote sensing systems and techniques with a broad range of crops and in a variety of climatic and topographic conditions.

The development of full agricultural potential is still beyond the domestic capabilities and conventional mapping technologies of many countries. Canadian companies are at work throughout the world in helping to provide solutions.

Among the range of applications for which Canadian systems, software and services are available are main crop inventories; early acreage estimates; automatic inventories and updating; early yield prediction; forage production estimates; soil utilization; crop optimization; disaster quantification; crop stresses evaluation; desertification; drought; groundwater; salinity stress; shrub encroachment; wetlands classification; erosion potential; irrigation mapping; and management information for crop producers.

Indonesia: Southern Sumatra.
Suitability for rice growing.

