

# Space age

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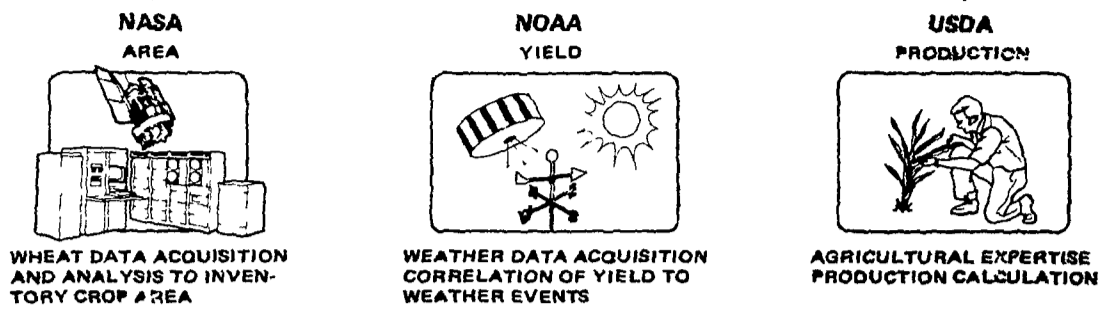
flow of information about factors related to and influencing crop production, and an efficient produce distribution system are needed to balance global supply and demand for food and feed grains.

The United States is a major producer of surplus commodity items and strives to improve the balance in world food supply and demand. By applying many of the aerial survey techniques and associated ground-based data systems developed for the space program, it can provide advance knowledge of crop production and potential demand. With this knowledge, food importers and exporters would be in a position to make earlier and more optimal decisions to buy or sell.

Concerning the need for developing space-age crop monitoring techniques, a spokesman for USDA said, "The gathering of accurate crop production information is becoming increasingly important to the United States and the world, particularly in regard to our nation's expanding capacity for exporting feed and food grains."

Another USDA official told the U.S. Congress, "To permit rational decisions in areas such as production, marketing, transportation, and internal trade, we must have up-to-date, accurate information on world food supplies and world food needs. The Department of Agriculture has been assigned the responsibility for collecting and reporting crop production information to the public."

## LACIE Participants

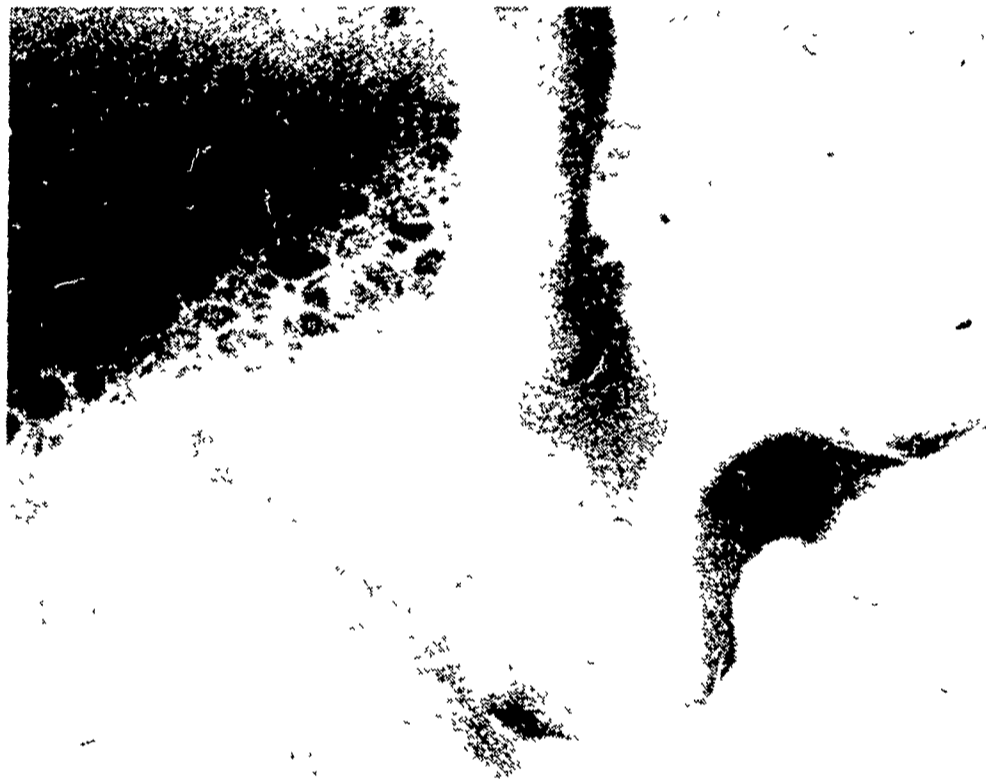


Technological expertise of the three LACIE participants combine to satisfy the formula for estimating wheat production (Production = Area times Yield)

The current USDA crop reporting system in the United States involves many trained observers. They inspect crops in the fields and send the results through an automated reporting system that combines the information and computes the production forecasts. The USDA does have a good working relationship with many foreign departments of agriculture; however, from some countries, reliable LACIE is a developmental project for the USDA. The LACIE investigators are trying to determine how much information can be obtained about crops from Earth-observing satellites and from

weather observations. For purposes of the experiment, LACIE is restricted to the study of a single crop—wheat.

The use of Earth-observing satellites to gather data on agricultural and other resources is an economically important application of the branch of space technology called remote sensing. In simple terms, remote sensing is the use of instruments to get information about an object without the instruments being in close contact with the object. Aerial photography is a well-known type of remote sensing.



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**40H2119 MILU BETTY IVANHOE CHIEF "VG" (87).** Rear udders, strength, style. PD +1159M +23F +90\$ 97% Rep 1/78 USDA. PDT +1 01 90% Rep 4/78 TPI +312 HFA

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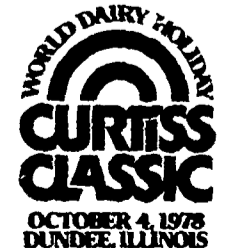
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