cause high protein alfalfa hay usually makes up a high percentage of the roughage portion of California's dairy cow rations, LPS can be fed profitably only if it is priced less than grain concentrate.

Road building and other construction activities on range and wildlands often involve considerable landscape manipulations and cause serious soil erosion. Maps derived from existing maps on topography, soils, and vegetation can facilitate effective land-use planning.

Survival of the Sugarbeet Cyst Nematode in the Alimentary Canal of Cattle

The sugarbeet cyst nematode (Heterodera schachtii) can be transferred from field to field by grazing cattle: infested roots and plant residues are eaten by cattle, and the eggs of the nematode are deposited, viable, in the manure onto uninfeated fields.

Drip Irrigation for Plants Grown in Containers

Drip irrigation offers horticulturists a way to control precisely the irrigation of plants grown in containers, but studies show this system poses some problems in control of salinity. Periodic leaching of the soil is necessary.

Occurrence of Spiroplasma citri in Periwinkle in California

The stubborn disease organism, S. citri, is spread in several areas of California by leafhoppers to healthy periwinkle plants.

Ocypus olens: A Predator of Brown Garden Snail

The large black rove-beetle can consume its own weight each day in brown garden snails and may prove to be an effective control once it is cultured and distributed to areas with serious snail problems.

Liquid Protein Supplement in Dairy Cattle Rations

Liquid protein supplements fed to cows in trials in Georgia resulted in increased milk production. However, being small samples of muscle from the neck and leg. If successful the research could take five years off the time needed to determine a beef animal's meat characteristics.

SMOG HURTS ALFALFA

U.C. Riverside plant scientists have shown through field trials that smog has a crippling effect on alfalfa—California's number two field crop. Significant yield and quality differences were evident in test plots growing in clean and smoggy air. Smog tolerant varieties now being developed by UC plant breeders and commercial firms may be released for planting in the near future.

EBBING TIMBER SUPPLY

Total timber removals in California during the next decade are likely to decline moderately but steadily, according to studies at UC Berkeley. By 1985 total removals will likely fall to about four billion board feet per year—about 70 percent of the 1970 level, reflecting policy constraints on timber removal from national forests and inventory constraints on supplies from private lands.

IMPROVING NITROGEN FIXATION

Molecular methods are now available to transfer nitrogen fixation genes from one bacterial strain to another; and U.C. agronomy and range science researchers believe it may be possible to incorporate these genes into crop plants. Thus legumes and other plants would not be dependent upon symbiotic relationships with bacteria to fix atmospheric nitrogen.