

AGRONOMY

Restorative Grass Gives New Hope to Old Land

► CRESTED WHEATGRASS, which is widely used to restore depleted northern Great Plains ranges, has proved it can be an even bigger boon to farmers than has been suspected.

Twelve years of experimenting with crested wheatgrass has convinced U. S. Department of Agriculture agronomists it can be depended upon to thrive on land that has been overgrazed, mismanaged, abandoned, or subject to frequent drought.

Plots of land seeded with crested wheatgrass yielded seven times as much perennial forage as native grasses on similar amounts of land. The wheatgrass produced two and one-half times as much total forage as native grass.

Crested wheatgrass seeds, spreads and grows faster than most other grasses. It can survive drought. However, Department of Agriculture experiments show there is little advantage in using it unless competing natural vegetation has been killed. Presumably this would be the case on depleted range land.

The experiments also indicate that fall seeding following a drought will renew range land in the shortest time possible with this method. The study was conducted by the Department of Agriculture and the Montana Agricultural Experiment Station.

Science News Letter, May 12, 1956

PHYSICS

Heavy Particles Used To Study Nucleus

► HEAVY CHARGED PARTICLES are new tools now being used to study the atom's heart, or nucleus, three scientists told the American Physical Society meeting in Washington.

The higher mass of charged nitrogen atoms simplifies discovering what happens when they are speeded up, then smacked into targets such as aluminum, Dr. Alexander Zucker of Oak Ridge National Laboratory said. Studying the atomic debris after such bombardments provides information about the size and shape of the nucleus.

Dr. G. T. Seaborg of the University of California, Berkeley, reported scientists there are using charged particles of high mass to bombard such heavy elements as uranium, and thus build up elements more massive than uranium. These man-made elements are too short-lived to exist in nature, but their properties can now be studied in the laboratory.

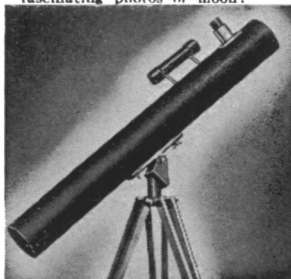
A halo of neutrons and protons makes the outer edge of a nucleus fuzzy rather than sharp, Dr. Gregory Breit of Yale University told the physicists. Firing heavy atomic particles at the nucleus is one way of determining the energy levels of this fuzzy edge, he said.

Science News Letter, May 12, 1956

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