

FEATURE

A monthly features service on scientific, technical, and educational subjects pertinent to development.

SCIENCE WORLD

*(a collection of development-oriented science news
briefs that may be used as a column, or as separate items)*

WONDER WEEDS

(approx. 190 words)

In the warm waters of the tropics the water hyacinth is a familiar pest. It can double its numbers every 8 days, clogging rivers and canals so densely that a man can walk on their surface and barely get his feet wet while below the surface the fish can barely survive. The pesky plant does have its good points, however, and after decades of fighting losing battles to control the weeds, scientists are at last getting around to exploiting them instead.

The water hyacinth has a remarkable capacity to absorb effluents in the water — it thrives on pollution and cleans the water as it grows. Harvested the water weed has been used experimentally to produce biogas, fertilizer, and chicken feed among other things. Now in Mexico, where it is estimated at least 20 percent of the waterways are infested, researchers at the Advanced Studies Centre of the National Polytechnic Institute have developed a process for producing flour from water hyacinths.

The flour, which is rich in nutrients, is planned for use as cattle feed, and will provide an inexpensive substitute for feed grains. Harvesting the water weeds could also reduce the strain on Mexico's heavily grazed pasture lands.

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SUPER COWS

(approx. 180 words)

It is possible for a cow to be the genetic mother of 80 calves in a single year. A valuable Simmental cow in Texas, USA, recently reached that record thanks to a rapidly growing breeding technique called embryo transfer.

American ranchers are now using the method to produce herds of superior, purebred cattle in a few years rather than over several decades. Its implications for rapidly improving the quality of beef cattle herds in the developing countries are promising.

Embryo transfer involves inseminating a superior cow by a purebred bull, usually artificially. After a week or so the fertilized egg is removed from the uterus of the cow and transferred to the uterus of an ordinary cow, who carries the embryo to term and produces a purebred calf.

The procedure has so far been limited to use with highly valuable stock because of its cost — \$450 to \$1800 per pregnancy. But artificial insemination of purebred cattle with frozen sperm has been used in the cattle industry for years and embryo transfer seems likely to follow as a key development.

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POSTCARD AS PASSWORD

(approx. 190 words)

Because receiving a postcard is a novelty in rural Bangladesh villages and its delivery involves many hands, the postcard makes a good medium to pass on information.

In three Bangladesh villages where a clean water campaign was underway, two postcards were designed illustrating the importance of using clean water.

The first one showed a water filter that could be built using simple, locally-available materials. The other pictured women drawing water from a well. The reverse side carried a few simple printed words.

The cards were mailed to extension workers living in the villages who could monitor the villagers' reaction, comments, and questions.

The result was positive. The postcards provoked interest, curiosity, and gossip. The extension workers were asked by several people to explain the illustrations and words on the cards.

New ways to use postcards to further nutritional education programs are being considered. One possibility is to introduce new and unfamiliar vegetables to villagers or encourage the use of low-cost nutritious food with a picture of the food on one side of the postcard and instructions for its cultivation and preparation on the other.

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