



FEATURE

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SCIENCE WORLD

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

SURE SHOTS

(200 words)

Ten million children who will be vaccinated against measles this year will get no benefit from their shots because the vaccine they receive will be "dead" -- destroyed by exposure to heat or sunlight.

The World Health Organization (WHO) recognizes the problem of deteriorating vaccines as "one of the biggest stumbling blocks to successful immunization programmes," especially in rural areas of the tropics, where there may be no refrigerated storage, and there is no way for the health worker to tell a "good" vaccine from a "bad" one.

Now an American company, Allied Chemical Corporation (ACC), has developed a prototype time-temperature indicator that changes colour when exposed to heat long enough to "kill" the vaccine. The indicator, a tiny adhesive tab that can be attached to the glass vaccine vial, is now being tested by the Program for Appropriate Technology in Health (PATH) in a project funded by Canada's International Development Research Centre (IDRC). ACC has made their invention available to the public sector because, they say, the potential profit return is too small to justify further investment.

If tests prove it to be reliable for measles and other vaccines, the indicator could do much to reduce the failure rate of immunization programmes -- and save many children's lives.

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BOOKS ON THE MOVE

(170 words)

Lack of information is one of the biggest problems facing researchers and educators in rural areas of Africa. To help overcome this isolation the African Institute for Economic and Social Development (INADES) in Ivory Coast established an experimental question-and-answer service in 1977 with support from Canada's International Development Research Centre (IDRC).

Unique in Africa, the service was an immediate success, and has drawn thousands of queries from all levels of society. It has even organized travelling "book boxes" containing up-to-date information kits on specialized topics. But the service is costly, and it is not always possible to provide complete documentation in response to an enquiry.

Now INADES and IDRC plan to expand the service to other countries in the region, and reduce costs. The secret is the microfiche -- a postcard-sized piece of microfilm that can contain a whole book. "Mini-libraries" equipped with microfiche reading machines will be established in associated centres, so that in future researchers will have access to complete original documents instead of photocopied extracts.

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HIGH-LIVING BEASTS

(190 words)

South America's camelids -- the alpaca, the llama, and the vicuna -- have long been the friends of the poor mountain people of the High Andes. They are providers of milk, meat, and fine quality wool, and are gentle beasts of burden into the bargain.

But until recently scientists have largely ignored the camelids, lumping them in with sheep, despite the fact that they are really small hump-less camels. They have numerous advantages over sheep -- not the least being that they not only survive but thrive at very high altitudes, being quite at home at over 4000 metres.

The Veterinary Institute of High Altitude and Tropical Research (IVITA) in Peru recognized the animals' worth some years ago and began to study them in earnest to see if production could be increased. Among other things they found that a large proportion of the animals are infested with parasites that render their meat inedible, reduce wool production, and may lead to early death.

With the help of Canada's International Development Research Centre (IDRC), IVITA is now developing improved feeding, disease control, and animal husbandry systems, particularly for the alpaca, which is most common in Peru.

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