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Cover: Worker oversees installation of tubewells to extract water for irrigating crops in Bangladesh. Though such irrigation technologies have been available for hundreds of years, only recently has much attention been given to the development of related technologies to cope with the soil salinization that irrigation usually fosters. (World Bank photo by Tomas Sennett)

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Letters

'Dawn horse' outdated

In "Fossils may clarify mammal evolution" (SN: 10/6/84, p. 213) hyracotherium is described as the "dawn horse."

It is, and it isn't. The animal was formerly called eohippus, which means dawn horse, and it is usually placed at the beginning of the equid line. However, it is now considered ancestral to a whole range of mammals, including tapirs and rhinoceroses, which is why eohippus was replaced by hyracotherium, which means "mouse shrew animal," and the old drawings of a 15-inch-high horse with toes instead of a hoof are no longer considered appropriate renditions of hyracotherium.

Arthur J. Morgan
New York, N.Y.

Engineering hearing

The pictures of a hair cell ("Crafting Sound From Silence," SN: 10/20/84, p. 252) suggest a possible method of controlling the frequency response of the cell. The kinocilium appears to have most of its mass near its tip. As shown by mechanics, as the mass of a vibrating system is increased, the natural frequency is decreased. It seems possible that the kinocilium could be programmed (chemically?) to maintain the mass necessary in its tip to hold a specific natural frequency for the stereocilia bundle.

Albert L. de Richemond, P.E.
Doylestown, Pa.

'Come hail or high water'

I can think of a couple of reasons why Thomas A. Seliga's hail-predicting system should not be introduced into NEXRAD ("Radar polarizes weather community," SN: 9/29/84, p. 198). The first is that, though the system may be able to identify hail in clouds, there is no way to predict where that hail will actually fall, for it tends to be highly concentrated and maddeningly selective. More important is the point that, come hail or high water, the crop must stand in the field until it is mature and there is no way to protect it, warning or no warning.

Joan Matheson
Valentine, Neb.

Much of what you say is true. Nonetheless, Seliga argues that there are a number of situations in which knowledge that a hailstorm has passed could be of help to farmers. For example, a farmer with hail insurance might not make a claim if he or she erroneously thought that wind had caused the damage. As for long-term forecasting, Seliga maintains that better information might help scientists determine the environmental conditions and topography that influence the movement and growth of hailstorms.

— S. Weisburd

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