contents of wheat leaf, husk, and bran are treated in the same way as the data for wheat flour, it is seen that the direct absorption of strontium-90 into the leaf and bran is consistent with the decreased fallout rate, while absorption into the husk agrees with the result for flour. If absorption of strontium-90 from wind-blown soil particles is a factor, then the content in husk, bran, and flour should all have been affected in the same way.

These calculations require the questionable assumption that the fraction absorbed by the wheat plant is constant from year to year. The retention and subsequent absorption of fallout probably varies greatly with the time and intensity of rainfall in relation to the age of the plant.

RONALD G. MENZEL
U.S. Agricultural Research Service, Beltsville, Maryland

My associates and I find Menzel's criticism very important and instructive. Though the contribution of wind-blown soil particles to the strontium-90 content in plants and the physiological mechanism of the phenomenon are not yet clear, it seems that the contribution of the soil particles does not necessarily affect the various parts of the plant in the same way. For example, at the time of ear shooting, husk and bran have already completed most of their growth, but the tissue which will eventually become wheat flour does most of its growing after ear shooting. Therefore, it seems likely that the strontium-90 derived from a soil particle that has adhered to the ear can be effectively incorporated into the "flour" tissue during its growth, together with other nutrient minerals. After the increase in mass of the "flour" tissue and the subsequent death of the husk tissue, rainout activity and direct absorption of strontium-90 become dominant factors, affecting the bran much more than the "flour" tissue. Therefore, the contribution of soil particles to bran can be assumed to be much less than the contribution to flour. Of course this is a possible assumption, though the mechanism would be more complicated. The phenomenon should be investigated further.

The relationship between fallout activity and contamination levels in plants has been utilized for analyzing food-chain contamination due to fallout. Of course, the influence of the rainfall pattern and the growing stage of the plant should be taken into consideration for the analysis. But it seems possible to assume that the rate of direct absorption of current fallout activity from year to year does not vary so much, if the same crops, harvested in the same season, are used.

RYUSHI ICHIKAWA
National Institute of Radiological Sciences, 250, Kurosuna-cho, Chiba-shi, Japan

Water Resources

A recent issue of *Science* [**134**, 658 (8 Sept. 1961)] carried a brief item, "Salt-free water," which states that an "economical method for converting sea water to fresh water would be immensely useful for this country, *which faces a water shortage in the decades ahead. . . .*" (italic mine). Appearing as it does in a scientific journal, this statement would seem to sanction the claims of the water-supply alarmists that the United States will run out of water within the next 40 years.

There is no disagreement over predictions of a steadily increasing use of water in the decades ahead, but the prophets of desiccation of our water resources imply that water used is water used up. A conservative estimate indicates that our net need for water will be about 117 billion gallons per day by A.D. 2000, or 18 percent of the supply likely to be available by that time on a sustained-yield basis. The Select Committee on National Water Resources published a figure of 156.3 billion gallons per day, based upon similar assumptions.

An increasing use of water means merely a greatly increased *reuse* of water. This reuse will require improved methods for in-plant recycling of water, and for treatment prior to final discharge to protect the interests of downstream users. Thus, the cost of water and of waste treatment will rise, but there will be nearly as much water available as there ever was.

Research on desalting ocean and brackish water is an important federal project, but it should be evaluated in proper perspective. An economical method for recovering fresh water from the ocean would be an undoubted boon to water-short areas, but it is illusory

to assume that water from the ocean will ever be very cheap. Prices quoted for converting ocean water invariably cover only the conversion cost; administrative expense and the cost of installing and maintaining distribution systems represent up to three-fourths of the charge for delivering water to a consumer's tap.

RICHARD D. HOAK

Mellon Institute,
Pittsburgh, Pennsylvania

Racism and "The Mankind Quarterly"

In *The Mankind Quarterly* there appeared, some time back, an article by Henry E. Garrett (*1*) entitled "Klineberg's chapter on race and psychology." It constitutes an unwarranted criticism of Klineberg's pamphlet *Race and Psychology*, published by UNESCO in 1952 (edition 2, in English, 1956). Garrett departs from the main theme to make various assertions about the biological, mental, and moral "inferiority" of Negroes and about the obvious degeneration of mixed-breed groups.

To quote from Garrett's review (*1*, p. 21): "The weak, disease-ridden population of modern Egypt offers dramatic evidence of the evil effects of a hybridization which has gone on for 5000 years. In Brazil, coastal Bahia with its negroid mixtures is primitive and backward as compared with the relatively advanced civilization of white southern Brazil. In the West Indies, the civilization is advanced almost exactly in the degree to which the populations are unmixed with the Negro. Haiti is an unhappy example of what the Negro can do when left to govern himself."

And from page 22 of the same article: "Klineberg states flatly that 'no racial factor has been discovered to be responsible' for crime. As usual, the fault lies in the social environment. Undoubtedly social factors *are* important, but it is hard to see how such influences can excuse the literally scandalous crime rate of the Negro in the United States. In 1954, the FBI reported (Dept. of Justice, Vol. 25, No. 2) the following ratios of Negro to white crimes: For murder, the Negro/white ratio is 16:1; for robbery, 13:1; for prostitution and vice, 16:1; for rape, 6:1. These ratios hold despite the fact that the Negro constitutes only 10% of the general population. *It requires a degree of*