

## **SAHARAFARM!**

Thomas Malthus, through a startling bit of reasoning, predicted that mass famine was inevitable. His reasoning was effective because it was simple, and it is to this day irrefutable. His premise was that because population increases geometrically and food supply can only increase arithmetically, eventually the need for food will surpass the Earth's ability to grow it. Although the human population had not grown enough and agriculture had not far enough advanced for Malthus to predict when this would occur, he knew it would not happen in his lifetime. Thus, he was spared the implication of his discovery.

We do not have that luxury today, for it is now plainly evident, by just about any study one might care to read, that the Earth's population will increase beyond our most optimistic estimate of food production no later than the year 2100. Even if population growth is curbed to its lowest conceivable rate, it is believed that the most careful farming methods will not stop erosion from turning the better part of today's farms into tomorrow's wastelands. There is, however, a solution to this agricultural dilemma. It is a concept we shall call SaharaFarm. It is not the first plan to irrigate the world's largest desert, but it is the only one that works.

SaharaFarm begins with incorporation. Stock is offered the public market, and federal grants are collected. This is stage one (development), which takes about three years. During this period scientists and engineers work out the details of our farm. When it is most economical, we shall contract out for work, as will likely be done for our seed development. The plan that emerges at the end of phase one is summarized below.

The Sahara desert is as big as the continental United States. It is this great resource that makes the SaharaFarm the most unstoppable enterprise ever conceived. Our land is obtained from

African countries, who consider the desert a curse, in exchange for food discounts and the unfathomable effect the SaharaFarm will have on their feeble economies. Our growing season is year-long. Our plants are genetically engineered for nutrition, high yield, and resilience to temperature. We have no livestock. We have no animals from which to protect our crops. All farming is automated, thanks to a surplus of free solar energy. Erosion does not exist on the SaharaFarm because we have no rain and no soil other than sand. Finally, there are two key resources required for desert farming: fertilizer and water. SaharaFarm is the only desert farming scheme that can provide itself these scarce elements.

Fertilizer for the SaharaFarm comes courtesy of the world's ocean port cities, which are forced to dump countless tons of class two and three human waste into their waters every day. This practice is costly and ruins fishing. We are paid to transport their class one (two stages cheaper and dirtier than what American cities are allowed to dump, but free of odor and rich in ammonium nitrate) sewage in supertankers to the Sahara. Sand makes excellent soil when so fortified, and tends to stay down in desert winds that would otherwise carry it into crop-destroying gusts.

Water is abundant in the oceans, but there it is poisoned with salt. Desalinization is achieved in a costly and inefficient manner in arid port cities around the world. Because de-sal takes so much energy, which is usually supplied by the costly and toxic use of fossil fuels, farming with ocean water had been dismissed. To solve this problem the Saharafarm makes use of a natural phenomenon for which no application has ever been developed [Scientific American, May 1995]. Deep ocean water contains a far weaker concentration of salt than upper-level water. If a tube is sunk to the depths of an ocean and this low-saline water is pumped to the surface, it begins to pump itself forever like a siphon! This effect is due to the fact that saline water has greater density than low-saline water. Upon delivery to the surface, the water is moved via oil-style, above-ground pipelines to the desert where it enters solar de-sal fields. Here the power of the sun is used to remove the still-poisonous levels of salt, and this pure water is then pumped into underground pipes which deliver it to our crops. The SaharaFarm will never run out of water, whereas the "bread

basket" of America is fed entirely off of one aquifer that is even now running on empty. Our distilled salt is sold worldwide in two grades: SaharaSalt 1 for foods use, and SaharaSalt 2 for wintertime roads and other industrial use. Because salt is a positive externality of our business, salt companies that mine their product can not compete under any circumstances. SaharaSalt is sold at a fraction of accepted salt prices. Local price supports cannot save local companies on the world market.

Planning done, we begin stage two (funding). Any country that has to import almost all of its food on a daily basis would be happy to help. A few countries, such as America, can not help us due to political pressure from its farmers. Investing governments receive SaharaFarm stock. Governments that invest by helping us build our farm (perhaps Germany, England, and France) receive food discounts.

Stage three (construction) is an on-going process. The SaharaFarm is constantly expanding as sales rise. As it expands we can offer food at ever lower prices. Traditional farms cannot ever compete in a price war with SaharaFarm; they are bought up and farmed for livestock, or locked away as wilderness preserves. SaharaFarm expands horizontally into its industry, controlling things like transportation and marketing to maximize efficiency. Traditional farms cannot be saved by government action as people demand cheaper food.

The SaharaFarm will eliminate hunger by making it possible for everyone to afford food. Although the hypothetical point at which geometric growth surpasses arithmetic growth exists despite the SaharaFarm, it would likely stabilize due to other factors before starvation would again become a threat. It is also doubtful that humans will have the same physical needs by this time, due to advances in biology and computer science. In any case, like Malthus, we are spared the implication of our foresight, thanks to the SaharaFarm.