In 1996, John Deere introduced this “green eggs and ham” GPS receiver, which helped usher in the age of precision agriculture. Mounted on top of a tractor’s cab, it received signals from Global Positioning System satellites and then fine-tuned the readings using a C-band antenna. Eventually, such receivers would guide autonomous tractors, enabling them to plow a field with centimeter precision. The receiver had to be rugged as well, able to withstand lousy weather, temperatures from –20°C to 45°C, vehicle vibration, and occasional incursions by rodents, birds, and other creatures.

For more on John Deere and precision agriculture, go to https://spectrum.ieee.org/pastforward0318