PATENTS AND VEGETABLE CROP DIVERSITY

The intellectual property system does not seem to drive the rate of innovation in the market for vegetable varieties. Drawing on a unique data set of all plant patents, plant variety protection certificates, and utility patents among 42 vegetable varieties, this short paper examines the relationship between intellectual property rights in vegetable crops and the diversity of commercially available varieties. Three findings are of particular interest: 1) Only 3.8% of varieties available in 2004 were ever subject to protection under patent law or the Plant Variety Protection Act; 2) More than 16% of all vegetable varieties that have ever been patented were commercially available in 2004; and 3) In 2004, approximately 4.5% of protected, or once protected, varieties consisted of inventions that were at least twenty years old. Although intellectual property rights appear to be an insignificant part of the crop diversity story, they exhibit much higher commercialization rates than expected (the conventional wisdom suggests a 5% rate), and they exhibit a slower rate of obsolescence than expected. Complete data on individual vegetable types are provided, and the sui generis nature of corn is also discussed.