Voices of the Bioneers
The Bioneers seek to unite nature, culture and spirit in an Earth-honoring vision, and create economic models founded in social justice.

Wild rice: Maps, genes and patents

Special to the Co-op Reporter, by Winona La Duke (200l)

It is Manoominike-Giizis, the wild rice moon, and the lakes teem with a harvest and a way of life. "Ever since I was bitty, I've been ricing," reminisces Spud Fineday of Ice Cracking Lake. Spud, with his wife Tater, rice at Cabin Point, and then move to Big Flat Lake, lakes on Minnesota's White Earth Reservation. "Sometimes we can knock four to five hundred pounds a day, " he says, explaining that he alternates the jobs of "poling and knocking" with Tater, a.k.a. Vanessa Fineday. The Finedays, like many other Anishinaabeg from White Earth and other reservations in the region, continue to rice, to feed their families, to "buy school clothes and fix cars," and get ready for the ever-returning winter. The wild rice harvest of the Anishinaabeg not only feeds the body, it feeds the soul, continuing a tradition which is generations old for these people of the lakes and rivers of the North. Spud Fineday remembers ricing since he was a child. It is a community event, a cultural event, which ties the community intergenerationally to all that is essentially Anishinaabeg, Ojibwe.

It is 1,500 miles away and I'm not sure that Ken Foster has ever seen a Northern Minnesota lake as the wild rice softly sways in the warm wind of Manoominike Giizis. Nor perhaps has he ever heard a loon calling a mate across the deep blues of the lake. Perhaps he should. Ken Foster, along with colleague Zan Hua Zahn of Norcal Wild Rice, in Woodland, California have successfully patented wild rice. U.S. Patent number 5955.648 is a patent on Zizania palustris which uses "cytoplasmic genetic male sterility," allowing for better commercial production of wild rice. It seems almost impossible in itself–patenting something called wild rice. Yet, in the age of Dolly the cloned sheep, and a patent proposed even on human genome stock, wild rice has become yet another frontier in the brave new world of technology.

University of Minnesota plant geneticist Ron Phillips and a few colleagues have just finished mapping the wild rice genome. Phillips is an affable guy who looks at his work as strictly scientific. However, the research Phillips is conducting promises to be for more than just the sake of science. Phillips writes in his recent study that his work is considered, "important as a foundation for genetic and crop improvement studies…the reference point for mapping and gene cloning."

While the future uses of such scientific data are at present unknown, we can be relatively assured as to who will most likely reap the benefits of this knowledge. The $21 million [cultivated] wild rice business is largely dominated by just a few firms. Their interest in genetic work on wild rice stems largely from their own economic interests, not environmental, humanitarian or tribal interests. More than that, university collaboration with seed companies may be common practice, but when two of the four researchers in the wild rice genome study (Grombacher and Kennard) come from companies like Dupont and Monsanto, some of us take notice.

Monsanto and Dupont are the two largest seed companies in the world. Monsanto alone has spent upwards of $8 billion in the last couple of years buying up U.S. seed

companies and Dupont recently purchased Pioneer, the second largest seed company in the world. This concentration of control over world seed stocks is alarming to farmers on a worldwide scale, especially considering that the closer seeds seem to be held, the fewer there are.

Worldwide, over l0,000 food plants are consumed, yet a mere 103 account for 90% of the world's food crops. In the United States, only 5-20% (depending on the crop) of varieties found in a l904 inventory of crops are still grown commercially or held in collections. Similarly, China has experienced a 90% loss in wheat varieties since World War II alone. For natural varieties (as opposed to domesticated), the World Conservation Union reported in l997 that one out of eight plants surveyed internationally (out of 240,000 " higher species" of plants) is potentially at risk, with extinction rates presently at l,000 species a year. The highest extinction rate is, ironically, in the United States. However you cut the statistics, from the villages of India to the villages of Northern Minnesota there is a marked loss in worldwide biodiversity, and a closer hold on who controls the remaining seeds of the world.

[Consider] Monsanto's track record. As Peter Montegue writes in Mother Jones, "Monsanto is a corporation which specializes in genetically modified seeds, seeds having particular properties that Monsanto has patented" [such as] the so-called "terminator seeds." These seeds do not reproduce. This ensures Monsanto's financial security because it forces farmers, who would usually save seed from one crop to the next, to buy seeds every year, a huge problem for millions of poor farmers worldwide. As well, some of the new genetically modified seeds (especially those containing a toxin produced by Bacillus thuringiensis or Bt) seem to make milkweed deadly to monarch butterflies, which illustrates one of the complications associated with genetically modified crops. While we can't be sure of the future of the wild rice genome studies, nor the interest in patents of wild rice, we can be sure that companies like Monsanto don't come to wild rice country without a lot of suitcases.

Wild rice is actually a grass, sharing only some genetic strains with other rice crops. That special nature is part of what drives its niche market and the millions of dollars now behind the industry. Over the past 30 years what the Creator gave to the Anishinaabeg has become a profit-making enterprise for many others. By 1968, Minnesota's paddy (cultivated) wild rice production already represented some 20% of the state's crop. Paddy rice production increased the available quantities of wild rice, and by 1973, had amplified the yield to some four million pounds. The increase in production, growing national public demand, and subsequent interest by the larger corporations (Uncle Ben's, Green Giant and General Foods) permanently altered the market of traditional wild rice. Lake-harvested rice could no longer effectively compete in price with the corporations' mass-manufactured paddy crop. Then in 1977 the Minnesota state legislature designated wild rice as Minnesota's official state grain. That was perhaps the kiss of death for the lake wild rice harvest. With an outpouring from the state coffers, the University of Minnesota aggressively began to develop a domesticated version of the wild rice crop. By the early 1980s cultivated wild rice had outstripped the indigenous varieties in production.

View entire article and learn about the campaign to save wild rice from genetic engineering at www.savewildrice.org/winona-article.

Winona LaDuke is an Anishinaabekwe (Ojibwe) enrolled member of the

Mississippi Band Anishinaabeg who lives and works on the White Earth Reservations and is the mother of three children. As Program Director of the Honor the Earth Fund, she works on a national level to advocate, raise public support and create funding for frontline native environmental groups. She also works as Founding Director for White Earth Land Recovery Project. Special to the Co-op Reporter
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