Table 49. **Renewable Energy: 2017 and 2012** [For meaning of abbreviations and symbols, see introductory text.]

Item	2017	2012	ltem	2017	2012
Renewable energy producing systemsfarms	2,730	868	Renewable energy producing systems - Con. Small hydro systems	11	4
Solar panelsfarms	1,778	575	Biodiesel production systems (see text)		
Wind turbinesfarms	363	117	, , , , , ,		-
Methane digestersfarms	2	4	Ethanol production systems (see text)	1	-
Geothermal/geoexchange			Other	22	8
systems (see text)farms	759	211	Wind rights leased to others farms	800	262

Table 50. Institutional, Research, Experimental, and American Indian Reservation Farms: 2017 and 2012

[For meaning of abbreviations and symbols, see introductory text.]

Characteristics	2017	2012	Characteristics	2017	2012
Farms number Land in farms acres Average size of farm acres	93 272,480 2,930	79 276,203 3,496	Market value of agricultural products sold (see text) - Con. Crops, including nursery and greenhouse crops\$1,000 Livestock, poultry, and their products\$1,000	10,603 20,384	12,510 21,140
Estimated market value of land and buildings	494,771 5,320,116 1,816	360,654 4,565,237 1,306	Total farm production expenses\$1,000 Average per farmdollars	35,170 378,175	35,408 448,200
Estimated market value of all machinery and equipment	27,010	23,430	Government payments 1 (see text) farms \$1,000 Average per farm dollars	39 984 25,235	36 596 16,542
Land in farms according to use:	27,010	20,400	Total income from farm-related sources	42 3,014	31 2.562
Total croplandfarms acres	65 31,922	57 25,234	Average per farmdollars	71,753	82,640
Harvested croplandfarms acres Other pasture and grazing land that could have	55 23,634	45 20,158	Tenure of producer (see text): Full owners	72 16	66 5
been used for crops without additional improvementsfarms acres	6 3,353	3 (D)	Tenants Farms by North American Industry Classification System:	5	8
Other croplandfarms acres	36 4,935	23 (D)	Oilseed and grain farming (1111)	28	17
Total woodlandfarms acres	19 9,837	15 (D)	Vegetable and melon faming (1112) Fruit and tree nut faming (1113) Greenhouse, nursery, and floriculture	-	1
Woodland pastured	6 158 13	161 11	production (1114)	2 21	3 22
acres	9,679	(D)	Tobacco farming (11191)	- -	
Permanent pasture and rangeland other than cropland and woodland pastured	45 (D)	38 235,103	Sugarcane farming, hay farming, and all other crop farming (11193, 11194, 11199)	21	22
Land in farmsteads, homes, buildings, livestock facilities, ponds, roads, wasteland, etcfarms acres	60 (D)	48 (D)	Beef cattle ranching and farming (112111) Cattle feedlots (112112) Dairy cattle and milk production (11212)	11 3 1	10 4
Irrigated land	22 10,946	19 11,377	Hog and pig farming (1122)	3	1
Market value of agricultural products sold (see text)\$1,000	30,987	33,650	Poultry and egg production (1123) Sheep and goat farming (1124) Aquaculture and other animal	4 -	1 -
Average per farmdollars	333,197	425,956	production (1125, 1129) (see text)	20	19

¹ Data for 2012 include loan deficiency payments, marketing loan gains, and net value of commodity certificates.