STATE OF NEW JERSEY

FIFTY Eighth

REPORT OF

THE STATE FARMLAND EVALUATION

COMMITTEE

PRODUCTIVITY VALUES

FOR

2023 TAX YEAR

FARMLAND ASSESSMENT ACT OF 1964

CHAPTER 48, LAWS OF 1964

TRENTON, NEW JERSEY   OCTOBER, 2022

ACKNOWLEDGMENTS

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REPORT OF THE STATE FARMLAND EVALUATION COMMITTEE

The Farmland Assessment Act of 1964 (Chapter 48, Laws of 1964) created a State Farmland Evaluation Advisory Committee. Under the Act, the Director of the Division of Taxation, the Dean of School of Environmental and Biological Sciences, and the Secretary of Agriculture are designated as members. The Laws of 2013 Chapter 43 changed the name of the Committee to the State Farmland Evaluation Committee and expanded membership to include a municipal tax assessor, county assessor or county tax administrator, and a farmer who is a current or former member of the State Board of Agriculture. The Act prescribed the functions and responsibilities of the Committee as follows:

"... The committee shall meet from time to time on the call of the Secretary of Agriculture or the Director of the Division of Taxation and annually determine and publish a range of values for each of the several classifications of land in agricultural and horticultural use in the various areas of the State. The committee shall determine the ranges in fair value of such land based upon its productive capabilities when devoted to agricultural or horticultural uses. In making these annual determinations of value, the committee shall consider available evidence of agricultural or horticultural capability derived from the soil survey at Rutgers, The State University; the National Co-operative Soil Survey; and such other evidence of value of land devoted exclusively to agricultural or horticultural uses as it may in its judgment deem pertinent. On or before October 1 of each year, the committee shall make these ranges of fair value available to the assessing authority in each of the taxing districts in which land in agricultural and horticultural use is located."

The original methodology of capitalizing net farm income per acre to determine the ranges in fair value of the several classifications of qualified land has been continued in this report.

Sources of primary data used in determining fair values are the U.S. Census of Agriculture (1964 through 2017), annual publications of the Economic Research Service and the National Agricultural Statistics Service of the United States Department of Agriculture, the New Jersey Department of Agriculture, the Annual FA-1 Data Report, and research publications developed at Rutgers – The State University.

The Committee submits this 2022 report for use in Tax Year 2023.

Douglas H. Fisher, Secretary of Agriculture
Department of Agriculture

Kathleen Hill, Assessor
Carneys Point Township
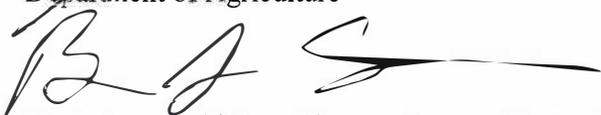
Dr. Brian J. Schilling, Director, Rutgers Cooperative Extension
Senior Associate Director,
New Jersey Agricultural Experiment Station
Rutgers, The State University of New Jersey

Ann Dorsett, Former Member
State Board of Agriculture

Shelly Reilly, Assistant Director
Property Division
Division of Taxation

LAND USE AND PRODUCTIVITY VALUE

The Farmland Assessment Act emphasizes the importance of land use and productivity as primary measures of value when land is devoted to agricultural production and authorizes the Committee to determine a range of fair values for the several classifications of land qualified by assessors.

Historically, farm operators have used their land in the following ways:
1. To produce crops and animal products for sale or feed for animals on the farm;
2. To remain fallow or in cover crops as part of a planned rotational program;
3. To remain unplowed for grazing or conservation purposes;
4. To remain in woods, streams, and meadows, which enhances the productivity of all the land cultivated.

LAND USE CLASSES

The historical uses of farmland described above are the basis for the land use classes listed and defined below:

1. **Cropland Harvested** – This land is the heart of a farming enterprise and represents the highest use of land in agriculture. All land from which a crop was harvested in the current year falls into this category.
2. **Cropland Pastured** – This land can be and often is used to produce crops, but its maximum income may not be realized in a particular year. Land that is fallow or in cover crops as part of a rotational program falls into this classification.
3. **Permanent Pasture** – This land is not cultivated because its maximum economic potential is realized from grazing or as part of erosion control programs. Animals may or may not be part of the farm operation for land to be qualified in this category.
4. **Non-Appurtenant Woodland** – Woodland which can only qualify for farmland assessment on the basis of being in compliance with a woodland management plan filed with the Department of Environmental Protection. It is actively devoted to the production for sale of tree and forest products.
5. **Appurtenant Woodland** – Woodland that is part of a qualified farm. Usually this land is restricted to woodlots because of slope, drainage capability, soil type, or topography. Such land has limited productive use but it provides a windbreak or watershed, or buffers or controls soil erosion.

SOIL GROUPS

Assuming average weather and management, the long-run productive capability of farmland in any of the land-use classes described previously is related primarily to the innate productivity of the soils found in those land-use classes.

To keep the valuation process within reasonable limits, the 215 soil types found in New Jersey were rated and categorized into five clearly defined soil groups by the Soils Department at Rutgers.[1]

These soil groups are described below:

Group A – **<u>Very productive farmland</u>** – The most desirable soil in the area because of high yields and ease of cultivation;

Group B – **<u>Good farmland</u>** – Desirable soil because yields are generally high and the land can be cultivated on a permanent basis;

Group C – **<u>Fair farmland</u>** – Yields are lower than those in soil Group B because of shallowness, propensity for drought, or excessive moisture. This land can be cultivated on a permanent basis;

Group D – **<u>Poor farmland</u>** – This soil is usually too wet, stony, prone to drought, or otherwise unsuitable for permanent cultivation. Yields are low when cultivated;

Group E – **<u>Very poor farmland</u>** – This land is often found in pasture or woodlands. Yields are very low because of excessive water, shallowness, stoniness, or frequent drought.

The boarding, rehabilitating or training of livestock is a qualified agricultural land use and deemed to be actively devoted to agriculture when the area is contiguous to land which otherwise qualifies for farmland assessment. One of the means to qualify a boarding, rehabilitating, or training facility is to use income imputed to land for grazing. This report includes imputed grazing values by soil group and county that may be found in column 6 of <u>Tables 1</u> and <u>2</u>.

<u>RANGES IN FAIR VALUES OF FARMLAND</u>

When land use and soil productivity data are combined, a range in fair value of farmland can be determined. These ranges in value are shown in <u>Tables 1</u> and <u>2</u> for each county in New Jersey. The values shown in <u>Table 1</u> are the ranges in the "good" soil category for the agricultural land use classes. <u>Table 2</u> shows the values in <u>Table 1</u> expanded to account for all five soil categories. The values in <u>Table 2</u> are the Committee's estimates of the value of farmland based upon its productive capabilities when devoted to agricultural or horticultural use. These are the ranges in value which the Committee is making available to the assessing authority in each of the taxing districts in accordance with the provisions of Section 20 of the Farmland Assessment Act of 1964.

The general method of calculation of farmland values for the 2023 tax year is shown in the Appendix.

APPENDIX

(a)   The U.S. Department of Agriculture publishes annual estimates of state farm income and expenses. The U.S. Census of Agriculture estimates state and county farm income every five years. These data as well as current data available in the Rutgers Department of Agricultural, Food and Resource Economics were used to estimate net farm income, the key determinant of current and future land value. The latest available estimate of statewide net farm income is shown below.

New Jersey Net Farm Income Used to Forecast 2023 Tax Year Values

	Million Dollars
Net Farm Income to Land	$381

(b)   State net farm income was allocated to each county using the share of each county's agricultural sales reported in the 2017 Census of Agriculture.[2]

(c)   Net income for each county was capitalized according to a return of 10% to estimate the total value of farmland in that county.[3]

Example of Determination of Total Value of Land in Farms for a County

	Net Income (Mil. $)	Capitalized Value (Mil. $)
County A	2.827	28.27

(d)   When the total capitalized value of farmland in the county is determined, a value per acre can be estimated. First it is necessary to multiply the acreages in each class (cropland harvested, cropland pastured, etc.) by a weighted estimate of income potential when farmland is devoted to that land use.[4] Using total income-weighted acres for a county, land value per acre is estimated for appurtenant woodland as a base case. The income weights are then used to calculate per-acre values for the remainng land use classes, each of which is a fixed multiple of appurtenant woodland. Examples of these procedures are shown in (d.1) through (d.5).

(d.1)   **Example of Acreage for a County's Land Use Classes**

Cropland Harvested	27,299
Cropland Pastured	3,686
Permanent Pasture	12,663
Non-appurtenant Woodland	39,557
Appurtenant Woodland	17,984
Total Qualified	101,189

(d.2)   **Income Weights Used in the Formula to Determine Value of Land Use Classes**

Land Use Class	Income Weights
Cropland Harvested	20
Cropland Pastured	10
Permanent Pasture	4
Non-Appurtenant Woodland	3.5
Appurtenant Woodland	1

(d.3)   **Example of Computing Value for Land Use Classes for a County**

Land Use Class	Acres	x	Income Weights	=	Weighted Acreage
Cropland Harvested	27,299		20		545,980
Cropland Pastured	3,686		10		36,860
Permanent Pasture	12,663		4		50,652
Non-Appurtenant Woodland	39,557		3.5		138,450
Appurtenant Woodland	17,984		1		17,984
Total Weighted Acreage					789,926

(d.4)   Dividing total county capitalized value by total weighted acreage calculated in (d.3) determines the estimated fair value of one acre of appurtenant woodland in the county ("X") shown below:

$$X = \frac{\text{Total County Capitalized Value}}{\text{Weighted Acreage}} = \frac{\$28.27 \text{ Million}}{789,926} = \$36 \text{ per acre}$$

(d.5)   Values of all land classes are calculated below:

Average Land Use Value of Classes Where X = 36

Cropland Harvested	20	x	36	=	720
Cropland Pastured	10	x	36	=	360
Permanent Pasture	4	x	36	=	144
Non-Appurtenant Woodland	3.5	x	36	=	126
Appurtenant Woodland	1	x	36	=	36

(e)   Values similar to those calculated in (d.5) above are are shown in Table 1 of this report. Table 1 shows the ranges in value of the several classifications of land specified in the first paragraph of Section 20 of the Farmland Assessment Act, and which the Committee has determined for land devoted to agricultural use.

(f)   When the values in Table 1 are adjusted for the productivity ratings of the soil as required in the second and third sentences of Section 20, a land value based upon land classification and soil productivity is determined.[5] The values that reflect soil productivity are the values recommended by the Committee for assessing purposes for Tax Year 2023. Assessors should note that an A value is provided which is 20% above the 100% value for cropland and 10% above the 100% values for woodland and permanent pasture. This value is calculated for farmland of exceptional quality in the district. It also provides a margin of error for data used in the estimation process in this report.

(g)   Land under farm buildings – This land, including boarding, training and rehabilitating facilities that are being used for farm activity, is valued as cropland harvested.

(h)   Imputed grazing values – These values include the maintenance cost for permanent pasture (mowing/clipping, lime, fertilizer, over seeding and herbicide application) plus net income for permanent pasture derived from Table 2. Maintenance costs are updated periodically based on changes in labor, equipment and materials. Permanent pasture by definition is a marginal land use (low productivity and low income), which limits the return on labor and material inputs.

FOOTNOTES

1.   Soil types were rated and categorized by Dr. John Tedrow, Late Professor of Soils at Cook College, Rutgers. A description of New Jersey soil ratings is contained in "Productive Capability of New Jersey Soils and Crops," Rutgers – The State University. A soils guide for use in connection with the valuation assessment, and taxation of land under the Farmland Assessment Act of 1964, Chapter 48, Laws of 1964 (N.J.S.A. 54:4-23.1 et seq.).

2.   The single-year net income figure reported in Appendix section (a) is not used for this purpose. Instead, the figure shown in (a) is used as part of a trend-based forecast of state net income. This approach provides the year-to-year stability in agricultural land values that we actually observe, reflecting the fact that land value is determined by a stream of expected earnings rather than by net income from any particular year.

3.   The capitalization rate of 10% considers a 7 1/2% rate of return equaling a farm mortgage rate of interest of 7 1/2% and 2 1/2% return for wages of management and unpaid family labor.

4.   The number of acres in each land use class was determined by the amount of land qualified by assessors as shown in the annual FA-1 report. The income weights were determined by agricultural economists at Rutgers, The State University of New Jersey.

5.   See Subchapter 14, State Farmland Evaluation Committee, N.J.A.C. 18:15-14.1.

TABLE 1
2023 County Values Per Acre by Land Classes
(column 6 shows the imputed grazing values per N.J.S.A. 54:4-23.5
and is used in determining qualifying income, not valuation)

County	Cropland Harvested		Cropland Pastured		Permanent Pasture		Non-Appurtenant Woodland		Appurtenant Woodland		Imputed Grazing Values
	Col. 1		Col. 2		Col. 3		Col. 4		Col. 5		Col. 6
	Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Value Per Acre
Atlantic	100	960	100	480	100	192	100	168	100	48	192
Bergen	100	960	100	480	100	192	100	168	100	48	192
Burlington	100	760	100	380	100	152	100	133	100	38	188
Camden	100	900	100	450	100	180	100	158	100	45	191
Cape May	100	800	100	400	100	160	100	140	100	40	189
Cumberland	100	840	100	420	100	168	100	147	100	42	190
Essex	100	940	100	470	100	188	100	165	100	47	192
Gloucester	100	800	100	400	100	160	100	140	100	40	189
Hunterdon	100	780	100	390	100	156	100	137	100	39	189
Mercer	100	780	100	390	100	156	100	137	100	39	189
Middlesex	100	940	100	470	100	188	100	165	100	47	192
Monmouth	100	920	100	460	100	184	100	161	100	46	191
Morris	100	900	100	450	100	180	100	158	100	45	191
Ocean	100	820	100	410	100	164	100	144	100	41	189
Passaic	100	960	100	480	100	192	100	168	100	48	192
Salem	100	640	100	320	100	128	100	112	100	32	186
Somerset	100	800	100	400	100	160	100	140	100	40	189
Sussex	100	640	100	320	100	128	100	112	100	32	186
Union	100	940	100	470	100	188	100	165	100	47	192
Warren	100	700	100	350	100	140	100	123	100	35	187

TABLE 2
2023 County Estimates of Ranges in Value of Farmland Based Upon Land Classification and Productive Capabilities When Devoted to Agricultural or Horticultural Use
(column 6 shows the imputed grazing values per N.J.S.A. 54:4-23.5 and is used in determining qualifying income, not valuation)

County	Soil Group	Cropland Harvested		Cropland Pastured		Permanent Pasture		Non-Appurtenant Woodland		Appurtenant Woodland		Imputed Grazing Values
		Col. 1		Col. 2		Col. 3		Col. 4		Col. 5		Col. 6
		Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Soil Rating	Value Per Acre	Value Per Acre
Atlantic	A	120	1152	120	576	110	211	110	185	110	53	194
	B	100	960	100	480	100	192	100	168	100	48	192
	C	70	672	70	336	80	154	90	151	90	43	188
	D	40	384	40	192	70	134	80	134	80	38	186
	E	10	96	10	48	60	115	70	118	70	34	185
Bergen	A	120	1152	120	576	110	211	110	185	110	53	194
	B	100	960	100	480	100	192	100	168	100	48	192
	C	70	672	70	336	80	154	90	151	90	43	188
	D	40	384	40	192	70	134	80	134	80	38	186
	E	10	96	10	48	60	115	70	118	70	34	185
Burlington	A	120	912	120	456	110	167	110	146	110	42	190
	B	100	760	100	380	100	152	100	133	100	38	188
	C	70	532	70	266	80	122	90	120	90	34	185
	D	40	304	40	152	70	106	80	106	80	30	184
	E	10	76	10	38	60	91	70	93	70	27	182

Camden

A	120	1080	120	540	110	198	110	173	110	50	193
B	100	900	100	450	100	180	100	158	100	45	191
C	70	630	70	315	80	144	90	142	90	41	187
D	40	360	40	180	70	126	80	126	80	36	186
E	10	90	10	45	60	108	70	110	70	32	184

Cape May

A	120	960	120	480	110	176	110	154	110	44	191
B	100	800	100	400	100	160	100	140	100	40	189
C	70	560	70	280	80	128	90	126	90	36	186
D	40	320	40	160	70	112	80	112	80	32	184
E	10	80	10	40	60	96	70	98	70	28	183

Cumberland

A	120	1008	120	504	110	185	110	162	110	46	192
B	100	840	100	420	100	168	100	147	100	42	190
C	70	588	70	294	80	134	90	132	90	38	186
D	40	336	40	168	70	118	80	118	80	34	185
E	10	84	10	42	60	101	70	103	70	29	183

Essex

A	120	1128	120	564	110	207	110	181	110	52	194
B	100	940	100	470	100	188	100	165	100	47	192
C	70	658	70	329	80	150	90	148	90	42	188
D	40	376	40	188	70	132	80	132	80	38	186
E	10	94	10	47	60	113	70	115	70	33	184

Gloucester

A	120	960	120	480	110	176	110	154	110	44	191
B	100	800	100	400	100	160	100	140	100	40	189
C	70	560	70	280	80	128	90	126	90	36	186
D	40	320	40	160	70	112	80	112	80	32	184
E	10	80	10	40	60	96	70	98	70	28	183

	A	120	936	120	468	110	172	110	150	110	43	190
	B	100	780	100	390	100	156	100	137	100	39	189
Hunterdon	C	70	546	70	273	80	125	90	123	90	35	186
	D	40	312	40	156	70	109	80	109	80	31	184
	E	10	78	10	39	60	94	70	96	70	27	182

	A	120	936	120	468	110	172	110	150	110	43	190
	B	100	780	100	390	100	156	100	137	100	39	189
Mercer	C	70	546	70	273	80	125	90	123	90	35	186
	D	40	312	40	156	70	109	80	109	80	31	184
	E	10	78	10	39	60	94	70	96	70	27	182

	A	120	1128	120	564	110	207	110	181	110	52	194
	B	100	940	100	470	100	188	100	165	100	47	192
Middlesex	C	70	658	70	329	80	150	90	148	90	42	188
	D	40	376	40	188	70	132	80	132	80	38	186
	E	10	94	10	47	60	113	70	115	70	33	184

	A	120	1104	120	552	110	202	110	177	110	51	193
	B	100	920	100	460	100	184	100	161	100	46	191
Monmouth	C	70	644	70	322	80	147	90	145	90	41	188
	D	40	368	40	184	70	129	80	129	80	37	186
	E	10	92	10	46	60	110	70	113	70	32	184

	A	120	1080	120	540	110	198	110	173	110	50	193
	B	100	900	100	450	100	180	100	158	100	45	191
Morris	C	70	630	70	315	80	144	90	142	90	41	187
	D	40	360	40	180	70	126	80	126	80	36	186
	E	10	90	10	45	60	108	70	110	70	32	184

Ocean	A	120	984	120	492	110	180	110	158	110	45	191
	B	100	820	100	410	100	164	100	144	100	41	189
	C	70	574	70	287	80	131	90	129	90	37	186
	D	40	328	40	164	70	115	80	115	80	33	185
	E	10	82	10	41	60	98	70	100	70	29	183

Passaic	A	120	1152	120	576	110	211	110	185	110	53	194
	B	100	960	100	480	100	192	100	168	100	48	192
	C	70	672	70	336	80	154	90	151	90	43	188
	D	40	384	40	192	70	134	80	134	80	38	186
	E	10	96	10	48	60	115	70	118	70	34	185

Salem	A	120	768	120	384	110	141	110	123	110	35	187
	B	100	640	100	320	100	128	100	112	100	32	186
	C	70	448	70	224	80	102	90	101	90	29	183
	D	40	256	40	128	70	90	80	90	80	26	182
	E	10	64	10	32	60	77	70	78	70	22	181

Somerset	A	120	960	120	480	110	176	110	154	110	44	191
	B	100	800	100	400	100	160	100	140	100	40	189
	C	70	560	70	280	80	128	90	126	90	36	186
	D	40	320	40	160	70	112	80	112	80	32	184
	E	10	80	10	40	60	96	70	98	70	28	183

Sussex	A	120	768	120	384	110	141	110	123	110	35	187
	B	100	640	100	320	100	128	100	112	100	32	186
	C	70	448	70	224	80	102	90	101	90	29	183
	D	40	256	40	128	70	90	80	90	80	26	182
	E	10	64	10	32	60	77	70	78	70	22	181

Union	A	120	1128	120	564	110	207	110	181	110	52	194
	B	100	940	100	470	100	188	100	165	100	47	192
	C	70	658	70	329	80	150	90	148	90	42	188
	D	40	376	40	188	70	132	80	132	80	38	186
	E	10	94	10	47	60	113	70	115	70	33	184

Warren	A	120	840	120	420	110	154	110	135	110	39	188
	B	100	700	100	350	100	140	100	123	100	35	187
	C	70	490	70	245	80	112	90	110	90	32	184
	D	40	280	40	140	70	98	80	98	80	28	183
	E	10	70	10	35	60	84	70	86	70	25	181