Illinois Department of Revenue
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Instructions for Farmland Assessments

The information in this publication is current as of the date of the publication. Please visit our website at **tax.illinois.gov** to verify you have the most current revision.

The contents of this publication are informational only and do not take the place of statutes, rules, or court decisions. For many topics covered in this publication, we have provided a reference to the Illinois Property Tax Code for further clarification or more detail. All of the sections and parts referenced can be found at 35 ILCS 200/1 et seq.

Contents

About this publication

Pub-122, Instructions for Farmland Assessments, is issued according to Section 10-115 of the Property Tax Code which states, “The Department shall issue guidelines and recommendations for the valuation of farmland to achieve equitable assessment within and between counties.”

Definition of Land Use

Section 10-125 of the Property Tax Code identifies cropland, permanent pasture, other farmland, and wasteland as the four types of farmland and prescribes the method for assessing each. Law requires cropland, permanent pasture, and other farmland to be defined according to US Bureau of Census definitions. The following definitions comply with this requirement.

- **Cropland** includes all land from which crops were harvested or hay was cut; all land in orchards, citrus groves, vineyards, and nursery greenhouse crops; land in rotational pasture, and grazing land that could have been used for crops without additional improvements; land used for cover crops, legumes, and soil improvement grasses, but not harvested and not pastured; land on which crops failed; land in cultivated summer fallow; and, idle cropland.

- **Permanent pasture** includes any pastureland **except** woodland pasture and pasture qualifying under the Bureau of Census’ cropland definition which includes rotational pasture and grazing land that could have been used for crops without additional improvements.

- **Other farmland** includes woodland pasture; woodland, including woodlots, timber tracts, cutover, and deforested land; and farm building lots other than homesites.

- **Wasteland** is that portion of a qualified farm tract that is not put into cropland, permanent pasture, or other farmland as the result of soil limitations and not as the result of a management decision.

How is farmland assessed?

- **Cropland** is assessed according to the equalized assessed value (EAV) of its adjusted soil productivity index (PI) as certified by the department. Each year, the department supplies a table that shows the EAV of cropland by PI.

  Note See Page 13 for Certified Values for 2012 Farmland Assessments.

  Cropland with a PI below the lowest PI certified by the department is assessed as follows:

  Step 1 Subtract the EAV of the lowest certified PI from the EAV for a PI that is five greater.

  Step 2 Divide the result of Step 1 by 5.

  Step 3 Find the difference between the lowest PI for which the department certified a cropland EAV and the PI of the cropland being assessed.

  Step 4 Multiply the result of Step 2 by the result of Step 3.

  Step 5 Subtract the result of Step 4 from the lowest EAV for cropland certified by the department.

  Step 6 The EAV of the cropland being assessed will either be the result of Step 5 or one-third of the EAV of cropland for the lowest certified PI, whichever is greater.

- **Permanent pasture** is assessed at one-third of its adjusted PI EAV as cropland. By statute, the EAV of permanent pasture cannot be lower than one-third of the EAV per acre of cropland of the lowest PI certified by the department.
- **Other farmland** is assessed at one-sixth of its adjusted PI EAV as cropland. By statute, the EAV of other farmland cannot be lower than one-sixth of the EAV per acre of cropland of the lowest PI certified by the department.
- **Wasteland** is assessed according to its contributory value to the farm parcel. In many instances, wasteland contributes to the productivity of other types of farmland. Some land may be more productive because wasteland provides a path for water to run off or a place for water to collect. Wasteland that has a contributory value should be assessed at one-sixth of the EAV per acre of cropland of the lowest PI certified by the department. When wasteland has no contributory value, a zero assessment is recommended.

What are the adjustment factors?

- **Adjustment for slope and erosion.** Use the Slope and Erosion Adjustment Table on Page 35 to make adjustments to the PI for slope and erosion.
- **Adjustment for flooding.** Adjust the PI of the affected acreage *only*, which suffers actual, not potential, crop loss due to flooding as prescribed in *Bulletin 810,* published by the University of Illinois, College of Agriculture, Cooperative Extension Service. The following text is taken directly from *Bulletin 810*.

  > "Estimated yields and productivity indices given in Table 2 apply to bottomland soils that are protected from flooding or a prolonged high water during the cropping season because of high water in stream valleys. Soils that are subject to flooding are less productive than soils that are protected by levees. The frequency and severity of flooding are often governed by landscape characteristics and management of the watershed in which a soil occurs. For this reason, factors used to adjust productivity indices for flooding must be based on knowledge of the characteristics and history of the specific site. Wide variation in the flooding hazard, sometimes within short distances in a given valley, require that each situation be assessed locally.
  >
  > If the history of flooding in a valley is known to have caused 2 years of total crop failures and 2 years of 50% crop losses out of ten years, for example, the estimated yields and productivity indices of the bottomland soils could be reduced to 70% of those given in Table 2. Estimated crop yields and productivity indices for upland soils subject to crop damage from long-duration ponding have already been reduced accordingly in Table 2."

  Flood adjustment procedures should

  - identify the actual acres affected by flooding;
  - determine, from yield data, the extent of crop loss (in bushels) caused in each flood situation;
  - adjust the PI of the affected soils by a percentage equal to the percentage of crop loss caused by each flooding situation over a multi-year (preferably ten-year) period; and
  - recompute the flood adjustments annually. The continuous collection and analysis of yield data is needed in order to identify and compensate for changes in a parcel's flooding history.

- **Adjustment for drainage district assessments.** The EAV of farmland acreage that is subject to a drainage district assessment must be adjusted. Divide the amount equal to 33 1/3 percent of the per acre drainage district assessment by the five-year Federal Land Bank

mortgage interest rate for that assessment year. Subtract the result from the EAV. Since drainage district assessments may vary greatly from year to year, it is advisable to use a five-year average of per acre drainage district assessments when making this adjustment.

- **Adjustments for soil inclusions, droughty soil and ponding.** Do not make an adjustment for soil inclusions, droughty soil, or ponding. Long-term yield averages taken at many locations already include these effects. Only unusual conditions of large amounts of inclusions with differing productivity potential would be likely to affect the productivity of a local area.

  Note When ponding consistently produces a crop loss, make a flooding adjustment.

What are the guidelines for alternative uses?

- **Roads.** Do not assign a value to acreage in dedicated roads unless a portion of the right-of-way is in a farm use. In this case, assess this portion.
- **Creeks, streams, rivers, and drainage ditches.** Assess acreage in creeks, streams, rivers, and drainage ditches that contribute to the productivity of a farm as contributory wasteland. Assess acreage that does not contribute to the productivity of a farm as non-contributory wasteland.
- **Grass waterways and windbreaks**. Assess acreage in grass waterways and windbreaks as other farmland.
- **Ponds and borrow pits.** Assess ponds and borrow pits used for agricultural purposes as contributory wasteland. If a pond or borrow pit is used as part of the homesite, assess it with the homesite at 331/3 percent of market value.
- **Power lines.** Generally, no adjustment is made.
- **Lanes and non-dedicated roads**. Assess acreage in lanes and non-dedicated roads the same as the adjacent land use. This could be as cropland, permanent pasture, other farmland, or wasteland.
- **Assessment of land under an approved forestry management plan.** Land that is being managed under the Illinois Forestry Development Act (FDA), as approved by the Illinois Department of Natural Resources, is considered “other farmland” for assessment purposes. Land assessed under the FDA is excluded from both the two-year and primary-use requirements. Any change in assessed value resulting from a newly-approved FDA plan begins on January 1 of the assessment year immediately following the plan’s initial approval date (whether or not trees have been planted). Changes in assessed value resulting from amendments or cancellations of existing plans also begin as of January 1 of the assessment year following the change. If the effective date of an FDA plan is January 1, then that plan would be eligible for an FDA assessment for that assessment year. Once the CCAO receives official notification that a tract has been granted approved FDA status, this status remains in effect until notified otherwise or until the property is sold. For more information, see Publication 135, Preferential Assessment for Wooded Acreage.
- **Assessment of land in vegetative filter strips.** Land in all downstate counties that has been certified by the Soil and Water Conservation District (SWCD) as being in an approved vegetative filter strip (VFS) is eligible, upon application, to be assessed at one-sixth of its soil PI EAV as cropland. Land in Cook County that has been certified by the SWCD as being in an approved VFS is eligible, upon application, to be assessed according to Section 10-130 of the Property Tax Code. Land assessed as a VFS is excluded from both the two-year and primary-use requirements.

  The effective date of the initial legislation that creates the assessment provision for a VFS is January 1, 1997. Assessment as a VFS begins in the first assessment year after 1996, for which the property is in an approved VFS use on the annual assessment date of January 1. For example, land that is in a VFS during a portion of 2001, and is certified by the SWCD as being in an approved status on January 1, 2002, is eligible for assessment as a VFS for the 2002 assessment year.
- **Land in Christmas tree production.** Land used for growing Christmas trees is eligible for a farmland assessment provided it has been in Christmas trees or another qualified farm use for the previous two years and that it is not part of a primarily residential parcel. If Christmas trees are grown on land that either was being cropped prior to tree plantings or land that ordinarily would be cropped, then the cropland assessment should apply until tree maturity prevents the land from being cropped again without first having to undergo significant improvements (*e.g.,* clearing). At this point, the “other farmland” assessment should apply. If Christmas trees are grown on land that was neither in crop production prior to tree planting nor would ordinarily be cropped, then the “other farmland” assessment instantly applies.
- **Land in conservation reserve program (CRP).** Land in the CRP is eligible for a farmland assessment provided it has been in the CRP or another qualified farm use for the previous two years and is not a part of a primarily residential parcel. CRP land is assessed according to its use. Land enrolled into the CRP can be planted in grasses or trees. If grass is planted, this land will be classified as cropland (according to the Bureau of Census’ cropland definition). If trees are planted, then the cropland assessment should apply until tree maturity prevents the land from being cropped again without first having to undergo significant improvements (*e.g.,* clearing). At this point, the “other farmland” assessment should apply.

- **Land in conservation reserve enhancement program (CREP).** Land in the CREP is eligible for a farmland assessment provided it has been in the CREP or another qualified farm use for the previous two years and is not a part of a primarily residential parcel. Land in CREP is assessed the same as CRP.
- **Horse boarding and training facilities.** The boarding and training of horses (regardless of the use for which the horses are being raised) is generally considered to meet the "keeping, raising, and feeding" provisions of the farm definition pertaining to livestock. Therefore, such a tract would be eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years; and, it is not part of a primarily residential parcel.
- **Assessment of tree nurseries.** Tree nurseries are included in the statutory definition of a farm. Such a tract would be eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. If trees are grown on land that either was being cropped prior to tree planting or land that ordinarily would be cropped, then the cropland assessment should apply until tree maturity prevents the land from being cropped again without first having to undergo significant improvements (*e.g.,* clearing). At this point, the "other farmland" assessment should apply. If trees are grown on land that was neither in crop production prior to tree planting nor would ordinarily be cropped, then the "other farmland" assessment would instantly apply.
- **Assessment of greenhouse property.** Greenhouses are included in the statutory definition of a farm. To qualify as a greenhouse, a building must be used for cultivating plants. A tract that qualifies as greenhouse property is eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. Greenhouses are assessed according to their contributory value, and greenhouse lots are assessed as "other farmland".
- **Wildlife farming.** Wildlife farming is included in the statutory definition of a farm. To qualify for wildlife farming, a tract must comply with the "keeping, raising, and feeding" provisions of the farm definition. The mere keeping of a wildlife habitat does not meet these provisions. Hunting may be a component of wildlife farming; but, hunting, in itself, does not constitute wildlife farming. Neither is just the purchase and release of adult game for hunting considered wildlife farming. Land that is actively engaged in the farming of wildlife is eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. Any such land that was either previously being cropped or ordinarily would be cropped, would warrant a cropland assessment until additional improvements (*e.g.,* clearing) would be required before the land could be cropped again. At this point, the other farmland assessment would apply. Any such land that neither was being cropped nor ordinarily would be cropped, would warrant an "other farmland" assessment.
- **Fish farming.** Fish farming is included in the statutory definition of a farm. To qualify for fish farming, a tract must comply with the "keeping, raising, and feeding" provisions of the farm definition. Fishing may be a component of fish farming; but, fishing, in itself, does not constitute fish farming. Neither is just the purchase and release of fish for fishing, a practice often referred to as "put and take," considered fish farming. Land that is actively used for the farming of fish is eligible for a farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel.
- **Compost sites.** Composting, generally, does not meet the farm definition. However, an on-farm composting site, where the finished product is for on-farm use, does qualify for the farmland assessment. If such a composting site is situated on land that either was being cropped prior to the composting activity or that ordinarily would be cropped, then the cropland assessment applies until the composting activity would prevent the land from being cropped again without first having to undergo significant improvements. At this point, the contributory wasteland assessment should apply. If the composting site is situated on land that was neither in crop production prior to composting activity nor would ordinarily be cropped, then the contributory wasteland assessment should instantly apply.
- **Sewage sludge disposal sites.** Determining the proper assessment classification for farmland that is also used as a sewage sludge disposal site depends upon circumstances pertaining to the particular site, such as
  - the application rate of the sludge,
  - whether or not the application of the sludge interferes with farming operations (sludge can be applied before a crop is planted, directly to a crop, after a crop is harvested, or in a manner so intensive as to prohibit farming), or
  - whether or not the owner or operator of the site receives financial payment.

  The overriding factor to determine whether such a dually-used tract is eligible for a farmland assessment is whether or not the sludge is being applied at agronomic rates (*i.e.,* rates which are suitable for the growth and development of crops). If nonfarm sludge is applied to an otherwise eligible farm tract at an agronomic rate, then the farm classification applies. If, however, cessation of farming occurs as a result of sludge being applied at a nonagronomic rate, then the farm classification may not apply. Even if application of nonfarm sludge at a nonagronomic rate does not interfere with farming

operations, income generated from this nonfarm activity may conflict with the law's sole-use requirement.

The Illinois Environmental Protection Agency, Water Pollution Control Division, should be contacted at **217 782-0610** for information pertaining to whether or not nonfarm sludge is being applied at an agronomic rate.

Other guidelines

- **"Idle land"** is land that is not put into a qualified farm use as the result of a management decision, including neglect. Idle land differs from wasteland, which is defined as "... that portion of a qualified farm tract which is not put into cropland, permanent pasture, or other farmland as the result of soil limitations and not as a result of a management decision."

  How to assess idle land depends upon whether or not the idle land

  - is part of a farm,
  - could be cropped without additional improvements, and
  - is larger or smaller than the farmed portion of the parcel or tract.

  Guidelines for the assessment of idle land are as follows:

  - If idle land is **not** part of a farm or not qualified for a special assessment (*i.e.,* open space), treat it as nonfarm and assess it at market value according to its highest and best use.
  - If idle land is part of a farm, and could be cropped without additional improvements, it may be assessed as cropland if the idle portion of the parcel is smaller than the farmed portion of the parcel.
  - If idle land is part of a farm but could not be cropped without additional improvements, it may be assessed as wasteland if the idle portion of the parcel is smaller than the farmed portion of the parcel.
  - Generally, when the idle portion of the parcel is larger than the farmed portion of the parcel, the idle portion is assessed at market value according to its highest and best use. However, when a farm tract consists of multiple tax parcels, the cropland or wasteland assessment may apply to the idle portion of a predominantly (or exclusively) idle parcel if the idle portion of the overall farm tract is smaller than the farmed portion of the tract.

  Distinguishing between idle land (that is not farmland) and land that may qualify under the farm definition as "forestry" may be difficult. However, to qualify as forestry, a wooded tract must be systematically managed for the production of timber.

- **Primary use provision of the farm definition.** The statutory farm definition (35 ILCS 200/1-60) states: "For purposes of this Code, 'farm' does not include property which is primarily used for residential purposes even though some farm products may be grown or farm animals bred or fed on the property incidental to its primary use." Because the farm definition prohibits farmed portions of primarily residential parcels from receiving a farmland assessment, assessors must make primary-use determinations on parcels that contain both farm and residential uses.

  The determination of primary-use must have a rational basis and be uniformly applied in the assessment jurisdiction. This recommended guideline is intended to supplement the assessor's judgement and experience and to provide advice and direction to assessors to determine whether or not a parcel with both farm and residential uses is used primarily for residential purposes. This guideline does not apply to tracts assessed under the forestry management or vegetative filter strip provisions of the Property Tax Code, nor does it apply to parcels that do not contain any residential usage.

  According to this guideline, the primary use of a parcel containing only intensive farm and residential uses is residential unless the intensively-farmed portion of the parcel is larger than the residential portion of the parcel. For purposes of this guideline, **"intensive farm use"** refers to farm practices for which the per acre income and expenditures are significantly higher than in conventional farm use. Intensive farm use is typically more labor-intensive than conventional farm use. According to this guideline, the primary use of a parcel containing only conventional farm and residential uses is residential unless the conventionally-farmed portion of the parcel is larger than the residential portion of the parcel and it is not less than five acres in area. These presumptions may be rebutted by evidence received that the primary use of the parcel is not residential. For purposes of this guideline, **"conventional farm use"** refers to the tending of all major and minor Illinois field crops, pasturing, foresting, livestock, and other activities associated with basic agriculture.

  If a parcel has a use combination of residential, conventional farm, and intensive farm, the determination of whether or not the primary use is residential must be made by applying the criteria for each type of farm use described in the preceding paragraphs and then weighing the result of all farm uses against residential use of the parcel.

  If a parcel has a use combination of residential, nonresidential-nonfarm (*e.g.,* commercial, industrial), and any type of farm use, then the relative proportion of all uses should be considered in determining whether the primary use of the parcel is residential. For example, if the primary use of the parcel is commercial, the primary use of the parcel cannot be residential and any farmed

portion of the parcel meeting the two-year requirement is entitled to a farmland assessment even though it may be smaller than the portion of the parcel used for residential purposes.

- **Alternative soil mapping guideline.** The department has consistently advocated the use of Illinois Cooperative Soil Survey (ICSS) soil mapping (mapping prepared for county detailed soil surveys) for computing farmland assessments. The ICSS soil maps contain the level of accuracy needed to assure that soil productivity indices and assessed values are accurate.

  The Natural Resources Conservation Service (NRCS), the agency responsible for directing the ICSS program, is a producer of Order 2 soil surveys. Order 2 soil mapping (mapping prepared at a scale of 1:12,000 to 1:20,000) is regarded by the department as the largest, feasibly-manageable scale for which to conduct a reliable state mapping project. The ICSS does not produce Order 1 (mapping produced at a scale usually larger than 1:12,000) soil mapping for a county. Although Order 1 soil mapping could provide a more detailed account of the soils for a specific site than Order 2 mapping, its lack of national and state standards will often cause it to be less accurate.

  Landowners may, however, challenge ICSS soil data (mapping) in a tax assessment complaint and submit alternative soil mapping. Such soil mapping should be prepared at the same scale or under the specifications and standards as ICSS soil mapping. When a complaint is filed, boards of review must decide whether evidence supports replacing ICSS soil mapping with alternative mapping. Evidence that supports substituting alternative soil mapping for ICSS soil mapping is the acceptance of such alternative mapping by the NRCS and a resulting change in the official record copy of the soil map. An official record copy soil map showing all approved soil surveys is maintained by the NRCS. Board of review decisions regarding the standing of alternative mapping should not be made without considering the expert opinion of the NRCS.

  Through combined efforts of the department, NRCS, and the Office of Research in the College of Agricultural, Consumer and Environmental Sciences at the University of Illinois at Champaign-Urbana, the following mechanism has been developed which will give boards of review access to such expert opinion.

  The chief county assessing officer (CCAO) should forward any alternative Order 2 soil mapping received in a complaint to the local NRCS field office. The NRCS field office will conduct an initial evaluation of the alternative soil mapping, and, as warranted, will forward the material to the NRCS area and/or state level. The NRCS will determine if the alternative mapping warrants a change in the official record copy. Boards of review should give substantial weight to NRCS decisions when settling complaints.

  Since NRCS evaluations will only be performed on alternative Order 2 soil mapping, according to this guide line, board of review rules should be amended to require that corresponding Order 2 soil mapping must accompany any Order 1 soil mapping submitted in a complaint. Boards of review can benefit greatly from an NRCS evaluation of Order 2 soil mapping.

  Since ICSS soil maps identify soils as they occur on the l landscape, boards of review should not replace ICSS soil mapping with any alternative mapping for areas smaller in size than a tax parcel. The entire tax parcel should be evaluated and mapped if alternative soil mapping is done.

- **Use of a tract during the assessment year.** Since real property is valued according to its condition on January 1 of the assessment year, a time when most farmland is idle, an assessor will often not know if a tract will no longer be used for farming. Therefore, circumstances occurring after January 1 may be taken into consideration to determine a parcel's tax status as farm or nonfarm. For example, if a typically cropped tract previously assessed as farmland has not been planted or used in any other qualified farm use during the assessment year and building construction has begun on the tract, the tract should **not** be assessed as farmland.

- **Significance of primary use on a non-residential parcel.** The primary use of a non-residential parcel does not have to be agricultural in order for a tract within the parcel to be assessed as a farm. The farmed portion of primarily commercial or industrial parcels is eligible for a farm assessment provided it qualifies under the statutory definition of farm and has qualified for the previous two years. For example, if a small farmed tract on an 80-acre industrial parcel meets the farm definition and has met the definition for the previous two years, the small tract should be assessed as farmland.

- **Two-year eligibility requirement.** The statutory requirement that land be in a farm use for the preceding two years applies to nonfarm converted-to-farm tracts for which there was no previous farming and not to tracts converted for the purpose of adding to existing farmland. For example, the two-year requirement would not apply when the dwelling on a farmed parcel is demolished and the land is farmed. The two-year requirement also does not apply to tracts assessed under the Forestry Development Act or land assessed as a vegetative filter strip.

- **Non-published modern detailed soil mapping.** Modern detailed soil maps prepared by the Natural Resources Conservation Service (USDA), are now complete in every county. Although the actual survey books are not yet published for every county, the mapping is finalized and available. Boards of review are advised to consider such detailed soil mapping when presented for appeal.

- **Effect of commercial retailing of farm products on preferential assessment status.** Eligibility for receiving the preferential farmland assessment depends solely upon a tract's conformity with the farm definition without regard to the retailing methods of agricultural products produced on the tract. For example, a pay-to-pick strawberry patch is eligible for a preferential farmland assessment provided its sole use has been in this or another qualified farm use for the previous two years and it is not part of a primarily residential parcel. Tracts devoted to nonfarm uses (*e.g.,* clubhouse, cabin), tracts where the use is not solely agricultural (*e.g.,* pasture also used for commercial horseback riding or camping), or tracts used for the sale of nonfarm products are not eligible for preferential treatment.
- **Effects of gubernatorial proclamation — declaring county as state of Illinois disaster area.** Unless stipulated, there is no farmland assessment relief associated with a disaster area proclamation. Any crop damage caused by flooding from such a disaster, should be compensated for through the county's flood adjustment procedure.
- **Use of ortho-photo base maps.** Use of an orthophoto base map is neither mandated by statute nor required by the department. The department recognizes certain advantages associated with ortho-photography, but is also aware of hardships the additional expense of ortho-photography may impose on some local governments. The benefits of ortho-photography increase when the photo base map is used in a computer-assisted mapping system or geographic information system and increases further as the steepness and diversity of the terrain increases. Before deciding on a base map, a county should be sure that it is accurate enough to allow for proper matching of parcel boundaries and soil types. The law requires that cropland, permanent pasture, and other farmland be assessed according to its adjusted PI. This can only be accomplished when soil types are adequately identified and measured by land use.
- **Effect of a designated Ag area on farmland assessments.** The Agricultural Areas Conservation and Protection Act, 505 ILCS 5/1 *et seq.,* provides for the establishment of agricultural conservation and protection areas (commonly called "Ag Areas"). The establishment of an Ag area provides the following benefits:
  - Landowners are protected from local laws or ordinances that would restrict normal farming practices, including nuisance ordinances.
  - Protection from special benefit assessments for sewer, water, lights or nonfarm drainage (unless landowners are benefited) is provided.
  - Land is protected from locally-initiated projects that would lead to the conversion of that land to other uses.
  - State agencies may consider the existence of Ag Areas when selecting a site for a project; however, the Act does not prohibit these agencies from acquiring land in Ag Areas for development purposes.

When determining farmland eligibility, no special consideration is given to a tract due to its being located within a designated Ag Area.

- **Comparing actual yields to formula yields when determining flood adjustments.** Sometimes the yields of flood-affected farms and upland farms of similar PIs are similar; but, once adjusted for flood, the flood-affected farms carry a lower assessment. In order to keep the PIs and assessments of flood-affected soils and similar-producing upland soils consistent, a proposal was presented for comparing actual yields to formula yields and not assigning a flood adjustment when the yield of a particular soil meets or exceeds the average yield for the soil's PI. The department advises against comparing actual yields to formula yields as a way of determining if a flood adjustment is warranted. The Farmland Assessment Law presupposes average yield potential under an average level of management. It would be inappropriate to penalize farmers who achieve higher-than-average yields through the employment of higher and costlier management practices. Refer to the instructions for flood adjustment.

Assessment of Farmland

The Farmland Assessment Law establishes capitalized net income as the basis for the EAV of farmland. Each year, the net income is determined for each PI of cropland. The net income is then capitalized by the five-year Federal Land Bank rate to determine an agricultural economic value (AEV) for each PI. The AEV for each PI is then multiplied by $33^1/_3$ percent, the product of which is the EAV. A listing of the 2012 EAVs of cropland by PI is given in Table 1. By law, the EAV of permanent pasture should be at one-third and the EAV of other farmland should be at one-sixth of these values.

To assess cropland, permanent pasture, or other farmland, determine the PI of each soil type. Because wasteland is assessed based on its contributory value as described in the guidelines, it is not necessary to determine the PI of wasteland in a farm parcel.

The degree of difficulty and accuracy in assessing farmland is determined by the type of soil maps available. The easiest and most accurate soil map to use is the detailed soil map prepared by the *Natural Resources and Conservation Service* for modern detailed soil surveys. A modern detailed soil map is an aerial base map showing the delineation of each soil type based on numerous soil samples and other field and laboratory analyses. Currently, all 102 counties have been mapped.

Individual soil weighting method

Using a detailed soil survey

Procedural steps and example assessments for implementing the individual soil weighting method using a detailed soil survey are given in Steps 1 through 10.

Step 1 — Obtain adequate aerial base tax maps. This step can be accomplished by acquiring or developing a set of aerial base tax maps as outlined in the Tax Maps and Property Index Number section of the Illinois Real Property Appraisal Manual or the Illinois Tax Mapping Manual.

Step 2 — Obtain detailed soil maps showing the distribution of each soil type. Detailed maps are prepared by the Natural Resources Conservation Service (USDA), in cooperation with the University of Illinois. These maps provide an inventory of the soil types found in a specific area. The various soil types are delineated on the soil map and are numerically coded for identification.

Reproduce detailed soil maps as overlays and at the same scale as the aerial base tax maps. This will allow you to easily identify soil types by land-use category. Make any necessary corrections for map distortion.

The aerial base tax map is shown as Figure 1. The parcel used in this example is 01-29-400-001-0011. This parcel consists of 158 acres, all the land in the SE ¼ of section 29 south of the center line of the road. An overlay of the detailed soil survey map is shown on the aerial photograph.

Step 3 — Determine, from aerial photograph interpretation and on-site inspection of the parcel, the portions of the tract to be classified as cropland, permanent pasture, other farmland, wasteland, road, and homesite. Cropland, permanent pasture, and other farmland will each have an assessment based upon soil productivity. Refer to the land use guidelines to determine into which category a specific land use falls. Also determine which portions of the wasteland contribute to the productivity of the farm. Delineate all land-use categories on the aerial photograph.

It was determined that the uses listed under Figure 1 were present. As outlined in the guidelines, the farm building site and the grass waterway will be assessed as other farmland and the creek will be assessed as wasteland. The creek contributes to the productivity of the farm by facilitating the drainage of the entire parcel. The homesite is assessed based upon the market value just as any other residential land.

Steps 4, 5, and 6 are illustrated in the example after Step 6.

Step 4 — Determine the acreage of each soil type within each land use category that will be assessed by productivity. The measurement may be made using a planimeter, grid, electronic calculator, or computerized mapping system (GIS, autocad, map info, *etc.*) whereby the various maps (soil, aerial, tax) may be digitized or scanned-in as layers. For noncomputerized mapping systems, outline the areas to be measured when the detailed soil survey map is laid over the aerial tax map. For this example, the acreage of each soil type was measured using an electronic area calculator and is shown under the headings “Soil I.D.” and “# Acres” on the PRC.

Step 5 — Determine soil PI ratings for each soil type identified. Table 2 lists the average management PI for soil types mapped in Illinois. To use the table, locate a soil’s identification number in the left-hand column and find its corresponding PI in the right-hand column.

The PIs of the soil on this parcel listed below are also shown under the heading “PI” on the PRC.

Soil ID	PI	Soil ID	PI
8	81	107	123
17	105	119	99
43	126	280	108
74	120		

Note For information on assigning PIs to soil complexes, refer to the section titled “*Soil complex adjustments”.*

Step 6 — Adjust the PIs for slope and erosion. The indexes given in Table 2 are for 0 to 2 percent slopes and uneroded conditions. Therefore, adjust these PIs for the negative influence of actual slope and erosion conditions.

Table 3 shows percentage adjustments for common slope and erosion conditions for favorable and unfavorable subsoil. Soil types with unfavorable subsoils are indicated in Table 2 under subsoil rooting. To use Table 3, select the proper subsoil type and correlate the percentage slope on the left-hand side of the table with the degree of erosion at the top of the table. The number taken from this table is a percentage that is multiplied by the PI taken from Table 2. The result is the PI under average level management adjusted for slope and erosion.

Slope is indicated on a detailed soil survey map by the letter following the soil number. In this particular soil survey, the slopes are identified as follows:

Letter code	% slope used	% slope used in Table 3
no letter or A	0-2% slope	1%
B	2-4% slope	3%
C	4-7% slope	6%
D	7-12% slope	10%
E	12-18% slope	15%
F	18-35% slope	27%

Note Letter codes and percentage of slope vary between detailed soil surveys and between soil types within surveys. **Consult your soil survey for the correct percentage of slope for each soil type.**

Because Table 3 cannot be used with slope ranges, use a central point of the slope ranges unless a better determinant of slope is available. For the slope ranges used in the example, the central points are given above.

Erosion is indicated on a detailed soil survey map by a number following the letter indicating slope. Erosion is indicated below.

No number or 1	**uneroded**
2	**moderate erosion**
3	**severe erosion**

Given the information above, the designation of a soil as 280C2 indicates soil #280 with 4-7 percent slope and moderate erosion.

Using Table 3 to find the percentage adjustment to the PI of a soil designated as “C” slope “2” erosion, read down the “slope” column to 6 percent and across to the “moderate erosion” column to find the number 93, or 93 percent adjustment. Applying this 93 percent adjustment to the PI of soil #280 given inTable 2 results in a PI adjustment for slope and erosion of 100 for the 280C2 soil (108 x 93% = 100).

The designation of a soil as 8F indicates soil #8 with 18-35 percent slope and uneroded.

Using Table 3 to find the percentage adjustment to the PI of a soil designated as “F” slope and uneroded, read down the “slope” column to 27 percent and across to the “uneroded” column to find the number 71 or 71 percent adjustment. Applying this adjustment to the PI of soil #8 given in Table 2 results in an adjusted PI of 58 for the 8F soil (81 x 71% = 58).

The PI adjustments and the adjusted PIs of all soils in the parcel are shown under the headings “Adj. Factor(s)” and “Adj. P.I.” on the PRC.

Example — Steps 4, 5, and 6

Property Record —

Ownership/Mailing Address & Abbr. Legal

Year 2012

	Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Cert. Value	Asmt.
Cropland (Full EAV)	17	105		105	28		
	43	126		126	35		
	119D	99	0.94 (S)	93	1		
	280B	108	0.99(S)	107	14		
	280C2	108	0.93(S & E)	100	5		
			Subtotal:		83		
Permanent Pasture (1/3 EAV)	8F	81	0.71(S)	58	4		
	43	126		126	1		
	74	120		120	12		
	107	123		123	4		
	119D	99	0.94 (S)	93	17		
	119E3	99	0.75 (S & E)	74	4		
	280B	108	0.99 (S)	107	6		
	280C2	108	0.93 (S & E)	100	8		
			Subtotal:		56		
Other Farmland (1/6 EAV)	43	126		126	4		
	280C2	108	0.93 (S & E)	100	3		
			Subtotal:		7		
Contributory Wasteland			1/6 Lowest EAV		6		
Non-Contributory Wasteland					2	0	0
Dedicated Roads					2	0	0
Total All Farmland					156		

	No. Acres	Value	Level	Asmt.
Homesite				
Residential Bldgs.				
Farm Bldgs.			33 1/3	

PRC-1F (R-6/99)

Steps 7 through 10 are illustrated on the PRC example following Step 10.

Step 7 — Determine the EAV per acre of each soil type for each land use category. To do this, locate the adjusted PI of each soil type in Table 1. The EAV per acre for a soil type in the cropland category is found directly from the table. For soil types in the permanent pasture and other farmland categories, determine the EAV per acre for each soil in the same manner as for cropland; then, multiply this value times one-third for permanent pasture and one-sixth for other farmland.

For example, soil #17 in the cropland category has an adjusted PI of 105. By locating the PI of 105 in Table 1, the EAV per acre is found to be $128.05. To determine the EAV per acre for a soil included in the permanent pasture and other farmland categories, multiply the value as cropland by one-third and one-sixth respectively. Soil 119D in the permanent pasture category has an adjusted PI of 93 which has a cropland value from Table 1 of $46.90. After multiplying this value by one-third, the EAV for this soil in the permanent pasture category is equal to $15.63. The EAV per acre of a soil included in the other farmland category is determined by multiplying its value as cropland from Table 1 by one-sixth.

The six acres of creek are considered to contribute to the productivity of the farm and are assessed as contributory wasteland at one-sixth of the value of the lowest PI of cropland certified by the department. For 2012, the lowest PI of cropland certified by the department was 82. The EAV per acre for cropland of PI 82 is $12.61. The EAV per acre of the wasteland that is a creek is $12.61 x $1/6$ = $2.10 per acre. An EAV per acre of zero is assigned to both the two acres of non-contributory wasteland and the two acres of public road. All EAVs by soil type are shown under the heading “Cert. Val.” on the PRC.

Step 8 — Calculate the assessed value for each soil type in each land-use category by multiplying the EAV per acre (from Step 7) by the number of acres for each corresponding soil type. For example, the assessed value for soil #43 in the cropland category is 35 (acres) x $441.65/acre = $15,457.75. These calculations are shown under the heading “Asmt.” on the PRC.

Step 9 — Subtotal the number of acres and assessed values of the soil types within each land-use category to obtain the total number of acres and total EAVs for the cropland, permanent pasture, and other farmland categories. In the example, the total EAV for the 83 acres of cropland is $21,512. These calculations are shown on the “Subtotal” line under their respective headings on PRC.

Step 10 — Determine the total EAV for farmland by adding the previously determined subtotals for cropland, permanent pasture, and other farmland to the assessed value of wasteland.

Property Record —

Ownership/Mailing Address & Abbr. Legal

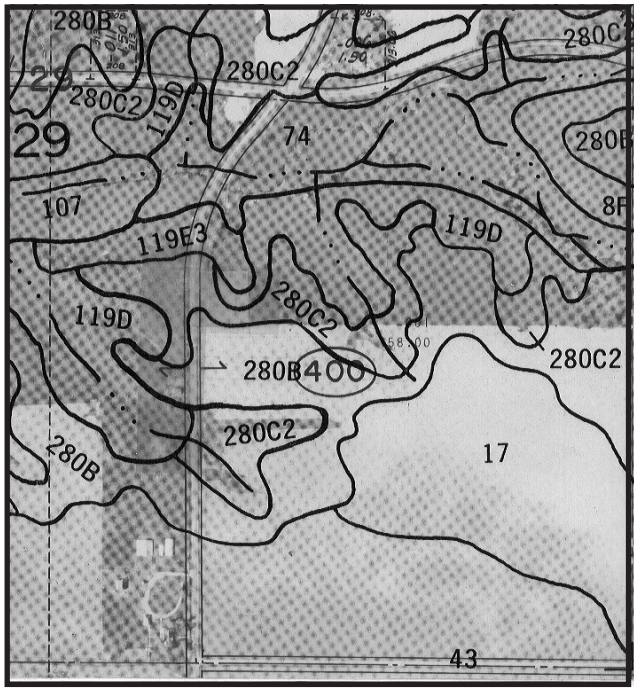
Year 2012

	Soil ID	PI	Adj. Factor(s)	Adj. PI	No. Acres	Cert. Value	Asmt.
Cropland (Full EAV)	17	105		105	28	128.05	3,585
	43	126		126	35	441.65	15,458
	119D	99	0.94 (S)	93	1	46.90	47
	280B	108	0.99(S)	107	14	141.86	1,986
	280C2	108	0.93(S & E)	100	5	87.23	436
			Subtotal:		83		21,512
Permanent Pasture (1/3 EAV)	8F	81	0.71(S)	58	4	4.20	17
	43	126		126	1	147.20	147
	74	120		120	12	85.46	1,026
	107	123		123	4	114.71	459
	119D	99	0.94 (S)	93	17	15.63	266
	119E3	99	0.75 (S & E)	74	4	4.20	17
	280B	108	0.99 (S)	107	6	47.28	284
	280C2	108	0.93 (S & E)	100	8	29.07	233
			Subtotal:		56		2,449
Other Farmland (1/6 EAV)	43	126		126	4	73.62	294
	280C2	108	0.93 (S & E)	100	3	14.54	44
			Subtotal:		7		338
Contributory Wasteland 1/6 Lowest EAV					6	2.10	13
Non-Contributory Wasteland					2	0	0
Dedicated Roads					2	0	0
Total All Farmland					156		24,312

	No. Acres	Value	Level	Asmt.
Homesite				
Residential Bldgs.				
Farm Bldgs.				33⅓

PRC-1F (R-6/99)

Figure 1



Use	Acres	Use	Acres
Cropland	83	Grass Waterway	3
Permanent Pasture	56	Wasteland	2
Farm Building Site	4	Creek	6
Homesite	2	Road	2

Soil complex adjustments

Occasionally, two or more soils occur together in a pattern that is too intricate for the individual soils to be delineated on the soil map at the scale being used. These groups of soils are called soil complexes. When this situation occurs, the PI of the complex is calculated by weighting or averaging the individual indexes of the soils in the complex. When the percentage of each type of soil in the complex is known, a weighted PI is calculated. The method for weighting is outlined below using the Cisne-Huey complex for a county in which percentages of each soil is known. If the percentages of each soil type cannot be obtained, the PIs for the individual soil types may be averaged to get a PI for the complex.

Cisne-Huey	**PI x percent**	**=**	**Contribution**
Cisne (2)	97 x 60%	=	58.2
Huey (120)	79 x 40%	=	31.6
Total	100%	=	89.8 = 90 = PI

Certified Values for Assessment Year 2012 ($ per acre)

Item # Average management PI	1 Gross income	2 Non-land production costs	3 Net land income	4 Agricultural economic value	5 Equalized assessed value
82	—	—	—	—	$ 12.61
83	—	—	—	—	$ 13.94
84	—	—	—	—	$ 15.27
85	—	—	—	—	$ 16.65
86	—	—	—	—	$ 18.04
87	—	—	—	—	$ 19.37
88	—	—	—	—	$ 20.61
89	—	—	—	—	$ 25.73
90	—	—	—	—	$ 31.02
91	—	—	—	—	$ 36.32
92	—	—	—	—	$ 41.61
93	—	—	—	—	$ 46.90
94	—	—	—	—	$ 52.20
95	—	—	—	—	$ 57.49
96	—	—	—	—	$ 62.78
97	—	—	—	—	$ 68.07
98	—	—	—	—	$ 73.35
99	—	—	—	—	$ 79.23
100	—	—	—	—	$ 87.23
101	—	—	—	—	$ 95.69
102	—	—	—	—	$ 104.39
103	—	—	—	—	$ 113.18
104	—	—	—	—	$ 121.21
105	—	—	—	—	$ 128.05
106	—	—	—	—	$ 134.99
107	—	—	—	—	$ 141.86
108	—	—	—	—	$ 148.05
109	—	—	—	—	$ 154.13
110	—	—	—	—	$ 160.27
111	—	—	—	—	$ 168.03
112	—	—	—	—	$ 176.69
113	—	—	—	—	$ 185.50
114	—	—	—	—	$ 194.47
115	—	—	—	—	$ 203.56
116	—	—	—	—	$ 212.83
117	—	—	—	—	$ 222.23
118	—	—	—	—	$ 231.74
119	—	—	—	—	$ 241.43
120	—	—	—	—	$ 256.40
121	—	—	—	—	$ 295.04
122	—	—	—	—	$ 331.63
123	—	—	—	—	$ 344.17
124	—	—	—	—	$ 362.22
125	—	—	—	—	$ 401.39
126	—	—	—	—	$ 441.65
127	—	—	—	—	$ 483.00
128	—	—	—	—	$ 500.41
129	—	—	—	—	$ 517.03
130	—	—	—	—	$ 533.83

The 5-year capitalization rate is 6.41 percent.

Table 2 Information and Acknowledgement

This table replaces Table 2 in Bulletin 810. Duplicate IL Map Symbols are in bold typeface. Use the appropriate soil type name to determine the proper productivity index.

Acknowledgement: Soil productivity indices and other required data for each Illinois soil were transferred to this web site. From 1996 to present, the Illinois crop yields estimates and productivity indices by soil type were created by a University of Illinois Urbana-Champaign, College of Agricultural, Consumer and Environmental Sciences task force of soil scientists, agronomists, crop scientists and agricultural economists under the direction of Dr. Kenneth R. Olson, Professor of Soil Science in the Department of NRES. The soil productivity indices for average management (B810) is maintained at the following NRES web site: **http://soilproductivity.nres.illinois.edu**. If you have an Ilinois soil type symbol **t**hat is not in this Table or have other soil productivity questions please contact Dr. Kenneth R. Olson at the following e-mail address**: krolson@illinois.edu.**

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
2	Cisne silt loam	Favorable	97
3	Hoyleton silt loam	Favorable	96
4	Richview silt loam	Favorable	98
5	Blair silt loam	Unfavorable	92
6	Fishhook silt loam	Unfavorable	86
7	Atlas silt loam	Unfavorable	79
8	Hickory loam	Favorable	81
9	Sandstone rock land	Crop yield data not available	
10	Plumfield silty clay loam	Unfavorable	72
12	Wynoose silt loam	Favorable	86
13	Bluford silt loam	Favorable	90
14	Ava silt loam	Unfavorable	89
15	Parke silt loam	Favorable	97
16	Rushville silt loam	Favorable	97
17	Keomah silt loam	Favorable	105
18	Clinton silt loam	Favorable	107
19	Sylvan silt loam	Favorable	98
21	Pecatonica silt loam	Favorable	100
22	Westville silt loam	Favorable	100
23	Blount silt loam	Favorable	93
24	Dodge silt loam	Favorable	108
25	Hennepin loam	Unfavorable	80
26	Wagner silt loam	Favorable	96
27	Miami silt loam	Favorable	99
28	Jules silt loam	Favorable	108
29	Dubuque silt loam	Unfavorable	85
30	Hamburg silt loam	Favorable	95
31	Pierron silt loam	Favorable	90
34	Tallula silt loam	Favorable	116
35	Bold silt loam	Favorable	97
36	Tama silt loam	Favorable	123
37	Worthen silt loam	Favorable	126
38	Rocher loam	Favorable	96
40	Dodgeville silt loam	Favorable	92
41	Muscatine silt loam	Favorable	130
42	Papineau fine sandy loam	Favorable	91
43	Ipava silt loam	Favorable	126
44	Pella silty clay loam, bedrock substratum	Favorable	100
45	Denny silt loam	Favorable	105
46	Herrick silt loam	Favorable	118
47	Virden silt loam	Favorable	122
48	Ebbert silt loam	Favorable	111
49	Watseka loamy fine sand	Favorable	82

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
50	Virden silty clay loam	Favorable	119
51	Muscatune silt loam	Favorable	130
53	Bloomfield fine sand	Favorable	75
54	Plainfield sand	Favorable	67
55	Sidell silt loam	Favorable	117
56	Dana silt loam	Favorable	116
57	Montmorenci silt loam	Favorable	103
59	Lisbon silt loam	Favorable	121
60	La Rose silt loam	Favorable	104
61	Atterberry silt loam	Favorable	117
62	Herbert silt loam	Favorable	116
63	Blown-out land	Crop yield data not available	
64	Parr fine sandy loam	Favorable	95
67	Harpster silty clay loam	Favorable	117
68	Sable silty clay loam	Favorable	126
69	Milford silty clay loam	Favorable	113
70	Beaucoup silty clay loam	Favorable	116
71	Darwin silty clay	Favorable	98
72	Sharon silt loam	Favorable	108
73	Ross loam	Favorable	119
74	Radford silt loam	Favorable	120
75	Drury silt loam	Favorable	112
76	Otter silt loam	Favorable	123
77	Huntsville silt loam	Favorable	127
78	Arenzville silt loam	Favorable	115
79	Menfro silt loam	Favorable	106
81	Littleton silt loam	Favorable	126
82	Millington loam	Favorable	111
83	Wabash silty clay	Favorable	103
84	Okaw silt loam	Favorable	85
85	Jacob clay	Favorable	73
86	Osco silt loam	Favorable	125
87	Dickinson sandy loam	Favorable	92
88	Sparta loamy sand	Favorable	81
89	Maumee fine sandy loam	Favorable	83
90	Bethalto silt loam	Favorable	118
91	Swygert silty clay loam	Unfavorable	104
92	Sarpy sand	Favorable	74
93	Rodman gravelly loam	Unfavorable	74
94	Limestone rock land	Crop yield data not available	
95	Shale rock land	Crop yield data not available	
96	Eden silty clay loam	Unfavorable	72
97	Houghton peat	Favorable	107
98	Ade loamy fine sand	Favorable	91
99	Sandstone and limestone roc	Crop yield data not available	

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
100	Palms muck	Favorable	104
101	Brenton silt loam, bedrock substratum	Favorable	111
102	La Hogue loam	Favorable	107
103	Houghton muck	Favorable	115
104	Virgil silt loam	Favorable	117
105	Batavia silt loam	Favorable	114
106	Hitt sandy loam	Favorable	100
107	Sawmill silty clay loam	Favorable	123
108	Bonnie silt loam	Favorable	98
109	Racoon silt loam	Favorable	94
111	Rubio silt loam	Favorable	101
112	Cowden silt loam	Favorable	103
113	Oconee silt loam	Favorable	105
114	O'Fallon silt loam	Unfavorable	89
115	Dockery silt loam	Favorable	114
116	Whitson silt loam	Favorable	103
119	Elco silt loam	Favorable	99
120	Huey silt loam	Unfavorable	79
122	Colp silt loam	Unfavorable	87
123	Riverwash	Crop yield data not available	
124	Beaucoup gravelly clay loam	Favorable	116
125	Selma loam	Favorable	114
126	Bonpas silt loam, overwash	Favorable	117
127	Harrison silt loam	Favorable	115
128	Douglas silt loam	Favorable	112
131	Alvin fine sandy loam	Favorable	98
132	Starks silt loam	Favorable	106
134	Camden silt loam	Favorable	106
136	Brooklyn silt loam	Favorable	99
137	Clare silt loam, bedrock substratum	Favorable	113
138	Shiloh silty clay loam	Favorable	115
138+	Shiloh silt loam, overwash	Favorable	111
141	Wesley fine sandy loam	Favorable	100
142	Patton silty clay loam	Favorable	117
145	Saybrook silt loam	Favorable	117
146	Elliott silt loam	Favorable	111
147	Clarence silty clay loam	Unfavorable	95
148	Proctor silt loam	Favorable	120
149	Brenton silt loam	Favorable	125

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
150	Onarga sandy loam	Favorable	97
151	Ridgeville fine sandy loam	Favorable	101
152	Drummer silty clay loam	Favorable	127
153	Pella silty clay loam	Favorable	120
154	Flanagan silt loam	Favorable	127
155	Stockland loam	Unfavorable	82
157	Symerton loam	Favorable	114
159	Pillot silt loam	Favorable	106
162	Gorham silty clay loam	Favorable	115
164	Stoy silt loam	Favorable	96
165	Weir silt loam	Favorable	94
166	Cohoctah loam	Favorable	118
167	Lukin silt loam	Favorable	96
171	Catlin silt loam	Favorable	122
172	Hoopeston sandy loam	Favorable	97
173	McGary silt loam	Unfavorable	89
174	Chaseburg silt loam	Favorable	107
175	Lamont fine sandy loam	Favorable	86
176	Marissa silt loam	Favorable	109
178	Ruark fine sandy loam	Favorable	88
179	Minneiska loam	Favorable	92
180	Dupo silt loam	Favorable	116
182	Peotone mucky silty clay loam, marl substratum	Favorable	106
183	Shaffton loam	Favorable	102
184	Roby fine sandy loam	Favorable	98
188	Beardstown loam	Favorable	100
189	Martinton silt loam	Favorable	115
191	Knight silt loam	Favorable	107
192	Del Rey silt loam	Favorable	100
193	Mayville silt loam	Favorable	98
194	Morley silt loam	Favorable	92
197	Troxel silt loam	Favorable	124
198	Elburn silt loam	Favorable	127
199	Plano silt loam	Favorable	126

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
200	Orio sandy loam	Favorable	97
201	Gilford fine sandy loam	Favorable	98
204	Ayr sandy loam	Favorable	96
205	Metea silt loam	Favorable	86
206	Thorp silt loam	Favorable	112
208	Sexton silt loam	Favorable	102
210	Lena muck	Favorable	111
212	Thebes silt loam	Favorable	98
213	Normal silt loam	Favorable	118
214	Hosmer silt loam	Unfavorable	93
216	Stookey silt loam	Favorable	102
217	Twomile silt loam	Favorable	93
218	Newberry silt loam	Favorable	101
219	Millbrook silt loam	Favorable	114
221	Parr silt loam	Favorable	105
223	Varna silt loam	Favorable	103
224	Strawn silt loam	Favorable	93
225	Holton silt loam	Favorable	89
226	Wirt silt loam	Favorable	94
227	Argyle silt loam	Favorable	108
228	Nappanee silt loam	Unfavorable	78
229	Monee silt loam	Favorable	88
230	Rowe silty clay	Favorable	98
231	Evansville silt loam	Favorable	114
232	Ashkum silty clay loam	Favorable	112
233	Birkbeck silt loam	Favorable	108
234	Sunbury silt loam	Favorable	116
235	Bryce silty clay	Favorable	107
236	Sabina silt loam	Favorable	108
238	Rantoul silty clay	Favorable	96
239	Dorchester silt loam	Favorable	113
240	Plattville silt loam	Favorable	106
241	Chatsworth silt loam	Unfavorable	69
242	Kendall silt loam	Favorable	110
243	St. Charles silt loam	Favorable	108
244	Hartsburg silty clay loam	Favorable	119
248	McFain silty clay	Favorable	105
249	Edinburg silty clay loam	Favorable	112

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
250	Velma loam	Favorable	100
252	Harvel silty clay loam	Favorable	111
256	Pana silt loam	Favorable	102
257	Clarksdale silt loam	Favorable	114
258	Sicily silt loam	Favorable	110
259	Assumption silt loam	Favorable	106
261	Niota silt loam	Favorable	87
262	Denrock silt loam	Favorable	102
264	El Dara silt loam	Favorable	89
265	Lomax loam	Favorable	102
266	Disco sandy loam	Favorable	96
267	Caseyville silt loam	Favorable	112
268	Mt. Carroll silt loam	Favorable	119
270	Stronghurst silt loam, sandy substratum	Favorable	111
271	Timula silt loam	Favorable	100
272	Edgington silt loam	Favorable	109
274	Seaton silt loam	Favorable	106
275	Joy silt loam	Favorable	127
277	Port Byron silt loam	Favorable	127
278	Stronghurst silt loam	Favorable	111
279	Rozetta silt loam	Favorable	106
280	Fayette silt loam	Favorable	108
282	Chute fine sand	Favorable	66
283	Downsouth silt loam	Favorable	120
284	Tice silty clay loam	Favorable	118
285	Carmi loam	Favorable	95
286	Carmi sandy loam	Favorable	94
287	Chauncey silt loam	Favorable	105
288	Petrolia silty clay loam	Favorable	103
290	Warsaw silt loam	Favorable	105
291	Xenia silt loam	Favorable	104
292	Wallkill silt loam	Favorable	109
293	Andres silt loam	Favorable	120
294	Symerton silt loam	Favorable	116
295	Mokena silt loam	Favorable	111
296	Washtenaw silt loam	Favorable	116
297	Ringwood silt loam	Favorable	115
298	Beecher silt loam	Favorable	101

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
300	Westland clay loam	Favorable	107
301	Grantsburg silt loam	Unfavorable	90
302	Ambraw clay loam	Favorable	101
304	Landes fine sandy loam	Favorable	89
306	Allison silty clay loam	Favorable	120
307	Iona silt loam	Favorable	105
308	Alford silt loam	Favorable	107
310	McHenry silt loam	Favorable	101
311	Ritchey silt loam	Unfavorable	74
312	Edwards muck	Favorable	97
313	Rodman loam	Unfavorable	74
314	Joliet silty clay loam	Favorable	87
315	Channahon silt loam	Unfavorable	71
316	Romeo silt loam	Unfavorable	43
317	Millsdale silty clay loam	Favorable	97
318	Lorenzo loam	Unfavorable	93
319	Aurelius muck	Favorable	85
320	Frankfort silt loam	Unfavorable	90
321	Du Page silt loam	Favorable	111
322	Russell silt loam	Favorable	103
323	Casco silt loam	Unfavorable	91
324	Ripon silt loam	Favorable	98
325	Dresden silt loam	Favorable	102
326	Homer silt loam	Favorable	101
327	Fox silt loam	Favorable	96
328	Holly silt loam	Favorable	96
329	Will silty clay loam	Favorable	115
330	Peotone silty clay loam	Favorable	108
331	Haymond silt loam	Favorable	117
332	Billett sandy loam	Favorable	88
333	Wakeland silt loam	Favorable	114
334	Birds silt loam	Favorable	103
335	Robbs silt loam	Favorable	92
336	Wilbur silt loam	Favorable	113
337	Creal silt loam	Favorable	98
338	Hurst silt loam	Unfavorable	88
339	Wellston silt loam	Unfavorable	80
340	Zanesville silt loam	Unfavorable	84
341	Ambraw silty clay loam, sandy su	Favorable	101
342	Matherton silt loam	Favorable	101
343	Kane silt loam	Favorable	110
344	Harvard silt loam	Favorable	111
345	Elvers silt loam	Favorable	104
346	Dowagiac silt loam	Favorable	99
347	Canisteo silt loam	Favorable	111
348	Wingate silt loam	Favorable	107
349	Zumbro sandy loam	Favorable	87

Table 2

Productivity of Illinois Soils Under Average Management
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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
350	Drummer silty clay loam, gravelly substratum	Favorable	122
351	Elburn silt loam, gravelly substratum	Favorable	120
352	Palms silty clay loam, overwash	Favorable	112
353	Toronto silt loam	Favorable	114
354	Hononegah loamy coarse sand	Favorable	74
355	Binghampton sandy loam	Favorable	93
356	Elpaso silty clay loam	Favorable	127
357	Vanpetten loam	Favorable	94
359	Fayette silt loam, till substratum	Favorable	105
360	Slacwater silt loam	Favorable	100
361	Kidder silt loam	Favorable	91
362	Whitaker variant loam	Favorable	105
363	Griswold loam	Favorable	103
365	Aptakisic silt loam	Favorable	102
366	Algansee fine sandy loam	Favorable	83
367	Beach sand	Crop yield data not available	
368	Raveenwash silty clay loam	Favorable	95
369	Waupecan silt loam	Favorable	123
370	Saylesville silt loam	Favorable	94
371	St. Charles silt loam, sandy substratum	Favorable	100
372	Kendall silt loam, sandy substratum	Favorable	104
373	Camden silt loam, sandy substratum	Favorable	96
374	Proctor silt loam, sandy substratum	Favorable	108
375	Rutland silt loam	Favorable	118
376	Cisne silt loam, bench	Favorable	97
377	Hoyleton silt loam, bench	Favorable	96
378	Lanier fine sandy loam	Favorable	72
379	Dakota silt loam	Favorable	99
380	Fieldon silt loam	Favorable	101
381	Craigmile sandy loam	Favorable	102
382	Belknap silt loam	Favorable	104
383	Newvienna silt loam	Favorable	119
384	Edwardsville silt loam	Favorable	124
385	Mascoutah silty clay loam	Favorable	125
386	Downs silt loam	Favorable	119
387	Ockley silt loam	Favorable	102
388	Wenona silt loam	Favorable	114
389	Hesch loamy sand, shallow variant	Unfavorable	50
390	Hesch fine sandy loam	Unfavorable	89
391	Blake silty clay loam	Favorable	103
392	Urban land, loamy Orthents complex	Crop yield data not available	
393	Marseilles silt loam, gravelly substratum	Unfavorable	96
394	Haynie silt loam	Favorable	105
395	Ceresco loam	Favorable	104
396	Vesser silt loam	Favorable	109
397	Boone loamy fine sand	Unfavorable	61
398	Wea silt loam	Favorable	115

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Productivity of Illinois Soils Under Average Management
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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
400	Calco silty clay loam	Favorable	121
401	Okaw silty clay loam	Favorable	78
402	Colo silty clay loam	Favorable	122
403	Elizabeth silt loam	Unfavorable	54
404	Titus silty clay loam	Favorable	104
405	Zook silty clay	Favorable	103
406	Paxico silt loam	Favorable	106
407	Udifluvents, loamy	Crop yield data not available	
408	Aquents, loamy	Crop yield data not available	
409	Aquents, clayey	Crop yield data not available	
410	Woodbine silt loam	Favorable	87
411	Ashdale silt loam	Favorable	110
412	Ogle silt loam	Favorable	116
413	Gale silt loam	Favorable	89
414	Myrtle silt loam	Favorable	110
415	Orion silt loam	Favorable	116
416	Durand silt loam	Favorable	112
417	Derinda silt loam	Unfavorable	84
418	Schapville silt loam	Unfavorable	94
419	Flagg silt loam	Favorable	106
420	Piopolis silty clay loam	Favorable	95
421	Kell silt loam	Favorable	83
422	Cape silty clay loam	Favorable	91
423	Millstadt silt loam	Favorable	97
424	Shoals silt loam	Favorable	113
425	Muskingum stony silt loam	Unfavorable	61
426	Karnak silty clay	Favorable	89
427	Burnside silt loam	Favorable	85
428	Coffeen silt loam	Favorable	117
429	Palsgrove silt loam	Favorable	92
430	Raddle silt loam	Favorable	122
431	Genesee silt loam	Favorable	111
432	Geff silt loam	Favorable	97
433	Floraville silt loam	Favorable	90
434	Ridgway silt loam	Favorable	104
435	Streator silty clay loam	Favorable	116
436	Meadowbank silt loam	Favorable	121
437	Redbud silt loam	Favorable	101
438	Aviston silt loam	Favorable	121
439	Jasper silt loam, sandy substratum	Favorable	104
440	Jasper silt loam	Favorable	115
441	Wakenda silt loam	Favorable	123
442	Mundelein silt loam	Favorable	123
443	Barrington silt loam	Favorable	115
445	Newhaven loam	Favorable	111
446	Springerton loam	Favorable	117
447	Canisteo silt loam, sandy substratum	Favorable	105
448	Mona silt loam	Favorable	104
449	Amiesburg - Sarpy complex	Favorable	100

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Productivity of Illinois Soils Under Average Management
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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
450	Brouillett silt loam	Favorable	118
451	Lawson silt loam	Favorable	124
452	Riley silty clay loam	Favorable	112
453	Muren silt loam	Favorable	105
454	Iva silt loam	Favorable	110
455	Mixed alluvial land	Crop yield data not available	
456	Ware silt loam	Favorable	104
457	Booker silty clay	Favorable	79
458	Fayette silt loam, sandy substratum	Favorable	104
459	Tama silt loam, sandy substratum	Favorable	120
460	Ginat silt loam	Favorable	95
461	Weinbach silt loam	Favorable	93
462	Sciotoville silt loam	Favorable	93
463	Wheeling silt loam	Favorable	96
464	Wallkill silty clay loam	Favorable	97
465	Montgomery silty clay loam	Favorable	98
466	Bartelso silt loam	Favorable	112
467	Markland silt loam	Unfavorable	93
468	Lakaskia silt loam	Favorable	107
469	Emma silty clay loam	Favorable	98
470	Keller silt loam	Unfavorable	101
471	Clarksville cherty silt loam	Unfavorable	54
472	Baylis silt loam	Favorable	96
473	Rossburg loam	Favorable	117
474	Piasa silt loam	Unfavorable	92
475	Elsah cherty silt loam	Favorable	97
476	Biddle silt loam	Unfavorable	103
477	Winfield silt loam	Favorable	105
479	Aurelius muck, sandy substratum	Favorable	92
480	Moundprairie silty clay loam	Favorable	103
481	Raub silt loam	Favorable	119
482	Uniontown silt loam	Favorable	104
483	Henshaw silt loam	Favorable	104
484	Harco silt loam	Favorable	124
485	Richwood silt loam	Favorable	120
486	Bertrand silt loam	Favorable	101
487	Joyce silt loam	Favorable	117
488	Hooppole loam	Favorable	107
489	Hurst silt loam, sandy substratum	Unfavorable	83
490	Odell silt loam	Favorable	114
491	Ruma silt loam	Favorable	103
492	Normandy silt loam	Favorable	109
493	Bonfield silt loam	Favorable	108
494	Kankakee fine sandy loam	Favorable	102
495	Corwin silt loam	Favorable	108
496	Fincastle silt loam	Favorable	107
499	Fella silty clay loam	Favorable	119

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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
501	Morocco fine sand	Favorable	77
503	Rockton loam	Favorable	90
504	Sogn silt loam	Unfavorable	54
505	Dunbarton silt loam	Unfavorable	66
506	Hitt silt loam	Favorable	105
508	Selma loam, bedrock substratum	Favorable	112
509	Whalan loam	Favorable	79
511	Dunbarton silt loam, cherty variant	Unfavorable	53
512	Danabrook silt loam	Favorable	122
513	Granby loamy sand	Favorable	96
515	Bunkum silty clay loam	Favorable	98
516	Faxon clay loam	Favorable	102
517	Marine silt loam	Favorable	92
518	Rend silt loam	Unfavorable	93
523	Dunham silty clay loam	Favorable	117
524	Zipp silty clay loam	Favorable	91
525	Joslin loam, bedrock substratum	Unfavorable	84
526	Grundelein silt loam	Favorable	122
527	Kidami silt loam	Favorable	102
528	Lahoguess loam	Favorable	111
529	Selmass loam	Favorable	107
530	Ozaukee silt loam	Favorable	96
531	Markham silt loam	Favorable	101
533	Urban land	Crop yield data not available	
534	Urban land, clayey Orthents complex	Crop yield data not available	
535	Orthents, stony	Crop yield data not available	
536	Dumps, mine	Crop yield data not available	
537	Hesch fine sandy loam, gray subsoil variant	Unfavorable	99
538	Emery silt loam	Favorable	112
539	Wenona silt loam, loamy substratum	Favorable	116
540	Frankville silt loam	Favorable	86
541	Graymont silt loam	Favorable	119
542	Rooks silt loam	Favorable	122
543	Piscasaw silt loam	Favorable	108
544	Torox silt loam	Favorable	109
545	Windere silt loam	Favorable	112
546	Keltner silt loam	Favorable	104
547	Eleroy silt loam	Favorable	93
548	Marseilles silt loam, moderately wet	Unfavorable	94
549	Marseilles silt loam	Unfavorable	94

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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
551	Gosport silt loam	Unfavorable	75
552	Drummer silty clay loam, till substratum	Favorable	120
553	Bryce-Calamine variant complex	Favorable	103
554	Kernan silt loam	Favorable	100
555	Shadeland silt loam	Favorable	85
556	High Gap loam	Unfavorable	84
557	Millstream silt loam	Favorable	115
558	Breeds silty clay loam	Favorable	105
559	Lindley loam	Favorable	83
560	St. Clair silt loam	Unfavorable	83
561	Whalan and NewGlarus silt loams	Favorable	85
562	Port Byron silt loam, sandy substratum	Favorable	115
563	Seaton silt loam, sandy substratum	Favorable	101
564	Waukegan silt loam	Favorable	106
565	Tell silt loam	Favorable	99
566	Rockton and Dodgeville soils	Favorable	91
567	Elkhart silt loam	Favorable	111
568	Niota silty clay loam, clayey subsurface variant	Favorable	78
569	Medary silty clay loam	Favorable	76
570	Martinsville silt loam	Favorable	101
571	Whitaker silt loam	Favorable	106
572	Loran silt loam	Favorable	107
573	Tuscola loam	Favorable	90
574	Ogle silt loam, silt loam subsoil variant	Favorable	102
575	Joy silt loam, sandy substratum	Favorable	119
576	Zwingle silt loam	Favorable	94
577	Terrace escarpment	Crop yield data not available	
578	Dorchester silt loam, cobbly substratum	Favorable	93
579	Beavercreek loam	Unfavorable	75
580	Fayette silty clay loam, karst	Favorable	96
581	Tamalco silt loam	Unfavorable	82
582	Homen silt loam	Favorable	96
583	Pike silt loam	Favorable	103
584	Grantfork silty clay loam	Unfavorable	77
585	Negley loam	Favorable	90
586	Nokomis silt loam	Favorable	100
587	Terril loam	Favorable	116
588	Sparta loamy sand, loamy substratum	Favorable	83
589	Bowdre silty clay	Favorable	98
590	Cairo silty clay	Favorable	105
591	Fults silty clay	Favorable	102
592	Nameoki silty clay	Favorable	106
593	Chautauqua silty clay loam	Favorable	106
594	Reddick silty clay loam	Favorable	115
595	Coot loam	Favorable	97
596	Marbletown silt loam	Favorable	115
597	Armiesburg silty clay loam	Favorable	117
598	Bedford silt loam	Favorable	83
599	Baxter cherty silt loam	Favorable	73

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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
600	Huntington silt loam	Favorable	122
601	Nolin silty clay loam	Favorable	102
602	Newark silty clay loam	Favorable	92
603	Blackoar silt loam	Favorable	116
604	Sandy alluvial land	Crop yield data not available	
605	Ursa silt loam	Unfavorable	76
606	Goss gravelly silt loam	Unfavorable	58
607	Monterey silty clay loam	Favorable	114
608	Mudhen clay loam	Favorable	95
609	Crane silt loam	Favorable	110
610	Tallmadge sandy loam	Favorable	109
611	Sepo silty clay loam	Favorable	114
613	Oskaloosa silt loam	Favorable	92
614	Chenoa silt loam	Favorable	114
615	Vanmeter silty clay loam	Favorable	69
618	Senachwine silt loam	Favorable	95
619	Parkville silty clay	Favorable	110
620	Darmstadt silt loam	Unfavorable	82
621	Coulterville silt loam	Unfavorable	98
622	Wyanet silt loam	Favorable	106
623	Kishwaukee silt loam	Favorable	119
624	Caprell silt loam	Favorable	101
625	Geryune silt loam	Favorable	121
626	Kish loam	Favorable	110
627	Miami fine sandy loam	Favorable	92
628	Lax silt loam	Favorable	81
629	Crider silt loam	Favorable	100
630	Navlys silty clay loam	Favorable	92
631	Princeton fine sandy loam	Favorable	96
632	Copperas silty clay loam	Favorable	107
633	Traer silt loam	Favorable	104
634	Blyton silt loam	Favorable	112
635	Lismod silt loam	Favorable	122
636	Parmod silt loam	Favorable	110
637	Muskego silty clay loam, overwash	Favorable	113
638	Muskego muck	Favorable	110
639	Wynoose silt loam, bench	Favorable	84
640	Bluford silt loam, bench	Favorable	90
641	Quiver silty clay loam	Favorable	93
644	Rennsselaer loam	Favorable	98
646	Fluvaquents, loamy	Crop yield data not available	
647	Lawler loam	Favorable	104
648	Clyde clay loam	Favorable	123
649	Nachusa silt loam	Favorable	121

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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
650	Prairieville silt loam	Favorable	116
651	Keswick loam	Favorable	74
652	Passport silt loam	Favorable	84
654	Moline silty clay	Favorable	98
655	Ursa silt loam, moderately wet	Unfavorable	78
656	Octagon silt loam	Favorable	104
657	Burksville silt loam	Favorable	95
658	Sonsac very cobbly silt loam	Unfavorable	71
660	Coatsburg silt loam	Unfavorable	86
661	Atkinson loam	Favorable	100
662	Barony silt loam	Favorable	111
663	Clare silt loam	Favorable	118
665	Stonelick fine sandy loam	Favorable	91
667	Kaneville silt loam	Favorable	113
668	Somonauk silt loam	Favorable	104
669	Saffell gravelly sandy loam	Unfavorable	71
670	Aholt silty clay	Favorable	81
671	Biggsville silt loam	Favorable	126
672	Cresent loam	Favorable	104
673	Onarga fine sandy loam, till substratum	Favorable	98
674	Dozaville silt loam	Favorable	121
675	Greenbush silt loam	Favorable	119
678	Mannon silt loam	Favorable	118
679	Blackberry silt loam	Favorable	126
680	Campton silt loam	Favorable	105
681	Dubuque-Orthents-Fayette complex	Crop yield data not available	
682	Medway silty clay loam	Favorable	116
683	Lawndale silt loam	Favorable	127
684	Broadwell silt loam	Favorable	122
685	Middletown silt loam	Favorable	103
686	Parkway silt loam	Favorable	122
687	Penfield loam	Favorable	115
688	Braidwood loam	Unfavorable	76
689	Coloma loamy sand	Favorable	67
690	Brookside stony silty clay loam	Unfavorable	82
691	Beasley silt loam	Favorable	75
692	Menfro - Wellston silt loams	Favorable	95
694	Menfro - Baxter complex	Favorable	94
695	Fosterburg silt loam	Favorable	110
696	Zurich silt loam	Favorable	105
697	Wauconda silt loam	Favorable	117
698	Grays silt loam	Favorable	110
699	Timewell silt loam	Favorable	122

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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
700	Westmore silt loam	Favorable	87
701	Menfro - Hickory silt loams	Favorable	97
702	Ruma - Hickory silt loams	Favorable	95
703	Pierron - Burksville silt loams	Favorable	93
705	Buckhart silt loam	Favorable	126
706	Boyer sandy loam	Favorable	88
709	Osceola silt loam	Favorable	101
711	Hatfield silt loam	Favorable	100
712	Spaulding silty clay loam	Favorable	118
713	Judyville fine sandy loam	Unfavorable	57
715	Arrowsmith silt loam	Favorable	124
717	Stockey - Clarksville complex	Favorable	84
718	Marsh	Crop yield data not available	
720	Aetna silt loam	Favorable	118
721	Drummer and Elpaso silty clay loams	Favorable	127
722	Drummer - Milford silty clay loams	Favorable	121
723	Reesville silt loam	Favorable	110
724	Rozetta-Elco silt loams	Favorable	103
725	Otter-Lawson silt loams	Favorable	123
726	Elburn silt loam, sandy substratum	Favorable	120
727	Waukee loam	Favorable	97
728	Winnebago silt loam	Favorable	108
730	Bethesda channery silty clay loam	Crop yield data not available	
731	Nasset silt loam	Favorable	100
732	Appleriver silt loam	Favorable	93
737	Tama silt loam, sandy substratum	Favorable	123
738	Milton silt loam	Unfavorable	57
739	Milton silt loam	Unfavorable	57
740	Darroch silt loam	Favorable	114
741	Oakville fine sand	Favorable	73
742	Dickinson sandy loam, loamy substratum	Favorable	95
743	Ridott silt loam	Favorable	99
745	Shullsburg silt loam	Unfavorable	100
746	Calamine silt loam	Favorable	97
747	Milford silty clay loams	Favorable	113
748	Plano silt loam, sandy substratum	Favorable	119
749	Buckhart silt loam, till substratum	Favorable	126

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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
750	Skelton fine sandy loam	Favorable	93
751	Crawleyville loam	Favorable	94
752	Oneco silt loam	Favorable	97
753	Massbach silt loam	Favorable	98
754	Fairpoint gravelly clay loam	Crop yield data not available	
755	Lamoille silt loam	Favorable	75
756	Wyanet fine sandy loam	Favorable	101
757	Senachwine fine sandy loam	Favorable	90
759	Udolpho loam, sandy substratum	Favorable	90
760	Marshan loam, sandy substratum	Favorable	109
761	Eleva sandy loam	Unfavorable	76
763	Joslin silt loam	Favorable	115
764	Coyne fine sandy loam	Favorable	93
765	Trempealeau silt loam	Favorable	100
766	Lamartine silt loam	Favorable	118
767	Prophetstown silt loam	Favorable	122
768	Backbone loamy sand	Favorable	77
769	Edmund silt loam	Unfavorable	79
770	Udolpho loam	Favorable	91
771	Hayfield loam	Favorable	100
772	Marshan loam	Favorable	110
774	Saude loam	Favorable	96
776	Comfrey clay loam	Favorable	122
777	Adrian muck	Favorable	97
779	Chelsea loamy fine sand	Favorable	68
780	Grellton sandy loam	Favorable	93
781	Friesland sandy loam	Favorable	105
782	Juneau silt loam	Favorable	116
783	Flagler sandy loam	Favorable	85
784	Berks loam	Unfavorable	56
785	Lacrescent cobbly silty clay loam	Favorable	73
786	Frondorf loam	Unfavorable	77
787	Banlic silt loam	Favorable	94
789#	Ambraw-Ceresco-Sarpy complex	Favorable	97
789#	Volney silt loam, bedrock substratum	Unfavorable	76
791	Rush silt loam	Favorable	96
792	Bowes silt loam	Favorable	115
793	Berks, Muskingum and Wiekert soils	Unfavorable	55
796	Huey-Burksville silt loam	Unfavorable	85
797	Hickory-Homen silty clay loam	Favorable	87
799	Arents, loamy	Crop yield data not available	

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IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
800	Psamments	Crop yield data not available	
801	Orthents, silty	Crop yield data not available	
802	Orthents, loamy	Crop yield data not available	
803	Orthents	Crop yield data not available	
804	Orthents, acid	Crop yield data not available	
805	Orthents, clayey	Crop yield data not available	
806	Orthents, clayey-skeletal	Crop yield data not available	
807	Aquents-Orthents complex	Crop yield data not available	
808	Orthents, sandy-skeletal	Crop yield data not available	
809	Orthents, loamy - skeletal, acid, steep	Crop yield data not available	
810	Oil-brine damaged land	Crop yield data not available	
811	Aquolls	Crop yield data not available	
812	Typic Hapludalfs	Crop yield data not available	
813	Orthents, bedrock subs.,silty, pits, complex	Crop yield data not available	
814	Muscatune-Buckhart complex	Favorable	128
815	Udorthents, silty	Favorable	95
816	Stookey-Timula-Orthents complex	Crop yield data not available	
817	Channahon-Hesch fine sandy loam	Unfavorable	78
818	Flanagan-Catlin silt loams	Favorable	125
819	Hennepin-Vanmeter complex	Unfavorable	76
820	Hennepin-Casco complex	Unfavorable	84
821	Morristown silt loam	Favorable	71
823	Schuline silt loam	Favorable	86
824	Swanwick silt loam	Favorable	82
825	Lenzburg silt loam, acid substratum	Favorable	59
826	Orthents, silty, acid substratum	Crop yield data not available	
827	Broadwell-Onarga complex	Favorable	112
828	Broadwell-Sparta complex	Favorable	106
829	Biggsville-Mannon silt loams	Favorable	123
830	Landfill	Crop yield data not available	
832	Menfro - Clarksville complex	Favorable	86
833	Menfro - Goss complex	Favorable	87
834	Wellston - Westmore silt loams	Unfavorable	83
835	Earthen dam	Crop yield data not available	
836	Hamburg - Lacrescent complex	Favorable	86
837	Limestone rockland - Lacrescent complex	Crop yield data not available	
838	Fayette - Goss complex	Favorable	88
840	Zurick and Ozaukee silt loams	Favorable	101
841	Carmi - Westland complex	Favorable	99
843	Bonnie and Petrolia soils	Favorable	101
844	Ava-Blair complex	Unfavorable	90
845	Darwin and Jacob silty clays	Favorable	89
846	Kamak and Cape silty clays	Favorable	91
847	Fluvaquents - Orthents complex	Crop yield data not available	
848	Drummer - Barrington - Mundelein complex	Favorable	123
849	Milford - Martinton complex	Favorable	114

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
850	Hickory-Hosmer silt loams	Unfavorable	86
851	Mefro-Ursa silt loams	Favorable	95
852	Mefro-Wellston silt loams	Favorable	95
853	Alford-Westmore silt loams	Favorable	99
854#	Markham-Ashkum-Beecher complex	Favorable	105
854#	Menfro - Westmore complex	Favorable	99
855#	Timewell and Ipava soils	Favorable	123
855#	Ruma-Westmore silt loams	Favorable	96
856	Stookey and Timula soils	Favorable	101
857	Strawn-Hennepin loams	Unfavorable	88
858#	Port Byron-Mt. Carroll-Urban land	Crop yield data not available	
858#	Port Byron-Mt. Carroll silt loams	Favorable	123
859	Blair-Ursa silt loams	Unfavorable	87
860#	Hosmer-Ursa silt loams	Unfavorable	87
860#	Homen - Atlas silt loams	Favorable	90
861	Ursa-Hickory complex	Unfavorable	78
862	Pits, sand	Crop yield data not available	
863	Pits, clay	Crop yield data not available	
864	Pits, quarries	Crop yield data not available	
865	Pits, gravel	Crop yield data not available	
866	Dumps, slurry	Crop yield data not available	
867	Oil-waste land	Crop yield data not available	
868	Pits, organic	Crop yield data not available	
869	Pits, quarries-Orthents complex	Crop yield data not available	
870	Blake-Beaucoup complex	Favorable	108
871	Lenzburg silt loam	Favorable	80
872	Rapatee silty clay loam	Favorable	97
873	Dunbarton-Dubuque complex	Unfavorable	73
874	Dickinson-Hamburg complex	Favorable	93
875	Lenzlo silty clay loam	Favorable	85
876	Lenzwheel silty clay loam	Favorable	75
877	Blake - Slacwater silt loams	Favorable	102
878	Coulterville-Grantfork silty clay loams	Unfavorable	90
880	Coulterville-Darmstadt complex	Unfavorable	92
881	Coulterville-Hoyleton-Darmstadt complex	Unfavorable	94
882	Oconee-Darmstadt-Coulterville silt loams	Unfavorable	97
883	Senachwine - Hennepin complex	Favorable	89
884	Bunkum-Coulterville silty clay loams	Unfavorable	98
885	Virden-Fosterburg silt loams	Favorable	116
886	Ruma-Ursa silty clay loams	Unfavorable	93
887	Darmstadt-Grantfork complex	Unfavorable	81
888	Passport-Grantfork complex	Unfavorable	83
889	Bluford-Darmstadt complex	Unfavorable	87
890	Ursa-Atlas complex	Unfavorable	78
891	Cisne-Piasa complex	Unfavorable	96
892	Sawmill-Lawson complex	Favorable	123
893	Catlin-Saybrook complex	Favorable	120
894	Herrick-Biddle-Piasa silt loams	Unfavorable	108
895	Fayette-Westville complex	Favorable	105
896	Wynoose-Huey complex	Unfavorable	83
897	Bunkum-Atlas silty clay loams	Unfavorable	92
898	Hickory-Sylvan complex	Favorable	88
899	Raddle-Sparta complex	Favorable	106

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
900	Hickory-Wellston silt loams	Unfavorable	80
901	Ipava-Osco complex	Favorable	126
902	Ipava-Sable complex	Favorable	126
903	Muskego and Houghton mucks	Favorable	112
904	Muskego and Peotone soils, ponded	Favorable	109
905	NewGlarus-Lamoille complex	Favorable	86
906	Redbud-Hurst silty clay loams	Unfavorable	97
907	Redbud-Colp silty clay loams	Unfavorable	96
908	Hickory-Kell silt loams	Favorable	83
909	Coulterville-Oconee silt loams	Unfavorable	101
910	Timula-Miami complex	Favorable	100
911	Timula-Hickory complex	Favorable	93
912	Hoyleton-Darmstadt complex	Unfavorable	91
913	Marseilles-Hickory complex	Unfavorable	89
914	Atlas-Grantfork complex	Unfavorable	80
915	Elco-Ursa silt loams	Unfavorable	90
916	Darmstadt-Oconee silt loams	Unfavorable	92
917	Oakville-Tell complex	Favorable	84
918	Marseilles-Atlas complex	Unfavorable	89
919	Rodman-Fox complex	Unfavorable	83
920	Rushville-Huey silt loams	Unfavorable	91
921	Faxon-Ripon complex	Favorable	101
922	Alford-Hurst silty clay loams	Unfavorable	100
923	Urban land-Markham-Ashkum complex	Crop yield data not available	
924	Urban land-Milford-Martinton complex	Crop yield data not available	
925	Urban land-Frankfort-Bryce complex	Crop yield data not available	
926	Urban land- Drummer-Barrington complex	Crop yield data not available	
927	Blair-Atlas silt loams	Unfavorable	88
928	NewGlarus-Palsgrove silt loams	Favorable	93
929	Ava-Hickory complex	Unfavorable	87
930	Goss-Alford complex	Unfavorable	78
931	Seaton-Goss complex	Unfavorable	87
932	Clinton-El Dara complex	Favorable	100
933	Hickory-Clinton complex	Favorable	92
934	Blair-Grantfork complex	Unfavorable	87
935	Miami-Hennepin complex	Unfavorable	92
936	Fayette-Hickory complex	Favorable	98
937	Seaton-Hickory complex	Favorable	96
938	Miami-Casco complex	Unfavorable	96
939	Rodman-Warsaw complex	Unfavorable	87
940	Zanesville-Westmore silt loams	Unfavorable	85
941	Virden-Piasa silt loams	Unfavorable	108
942	Seaton-Oakville complex	Favorable	93
943	Seaton-Timula silt loams	Favorable	104
944	Velma-Coatsburg silt loams	Unfavorable	95
945	Hickory-High Gap silt loams	Unfavorable	82
946	Hickory-Atlas complex	Unfavorable	81
947	Lamont, Tell and Bloomfield soils	Favorable	88
948	Fayette-Clarksville complex	Unfavorable	87
949	Eleroy and Derinda soils	Unfavorable	89

Table 2

Productivity of Illinois Soils Under Average Management
Slightly Eroded, 0 to 2 Percent Slopes

Revised January 1, 2012

IL map symbol	Soil type name	Subsoil rooting	B 810 Productivity Index (PI) Average management
950	Dubuque and Palsgrove soils	Unfavorable	88
951	Palsgrove and Woodbine soils	Favorable	90
952	Tell-Lamont complex	Favorable	95
953	Hosmer-Lax silt loams	Unfavorable	88
954	Alford-Baxter complex	Favorable	94
955	Muskingum and Berks soils	Unfavorable	59
956	Brandon and Saffell soils	Unfavorable	83
957	Elco-Atlas silt loams	Unfavorable	91
958	Hickory and Hennepin soils	Unfavorable	81
959	Strawn-Chute complex	Favorable	82
960	Hickory-Sylvan-Fayette silt loams	Favorable	92
961	Burkhardt-Saude complex	Favorable	82
962	Sylvan-Bold complex	Favorable	98
963	Hickory and Sylvan soils	Favorable	88
964#	Hennepin and Miami soils	Unfavorable	88
964#	Miami and Hennepin soils	Favorable	92
965	Tallula-Bold silt loams	Favorable	109
966	Miami-Russell silt loams	Favorable	101
967	Hickory-Gosport complex	Unfavorable	79
968	Birkbeck-Miami silt loams	Favorable	105
969	Rodman-Casco complex	Unfavorable	81
970	Keller-Coatsburg complex	Unfavorable	95
971	Fishhook-Atlas complex	Unfavorable	84
972	Casco-Fox complex	Unfavorable	93
973	Dubuque and Dunbarton soils	Unfavorable	78
974	Dickinson-Onarga complex	Favorable	94
975	Alvin-Lamont complex	Favorable	93
976	Neotoma-Rock outcrop complex	Crop yield data not available	
977	Neotoma-Wellston complex	Unfavorable	74
978	Wauconda and Beecher silt loams	Favorable	111
979	Grays and Markham silt loams	Favorable	106
980	Zurich and Morley silt loams	Favorable	100
981	Wauconda and Frankfort silt loams	Unfavorable	106
982	Aptakisic and Nappanee silt loams	Unfavorable	92
983	Zurich and Nappanee silt loams	Unfavorable	94
984	Barrington and Varna silt loams	Favorable	110
985	Alford-Bold complex	Favorable	103
986	Wellston-Berks complex	Unfavorable	70
987	Atlas-Grantfork variant complex	Unfavorable	77
988	Westmore-Neotoma complex	Unfavorable	80
989	Mundelein and Elliott soils	Favorable	118
990	Stookey-Bodine complex	Unfavorable	90
991	Cisne-Huey complex	Unfavorable	90
992	Hoyleton-Tamalco complex	Unfavorable	90
993	Cowden-Piasa complex	Unfavorable	99
994	Oconee-Tamalco complex	Unfavorable	96
995	Herrick-Piasa complex	Unfavorable	107
996	Velma-Walshville complex	Unfavorable	93
997	Hickory-Hennepin complex	Unfavorable	81
998	Hickory-Negley complex	Favorable	86
999	Alford-Hickory complex	Favorable	97

Duplicate IL Map Symbols are in Bold Print (use the appropriate soil type name)
+ Overwash phase

Table 3

BULLETIN 810 SLOPE & EROSION ADJUSTMENT TABLE

FAVORABLE SUBSOIL				UNFAVORABLE SUBSOIL			
Percent of Slope	Slight Erosion	Moderate Erosion	Severe Erosion	Percent of Slope	Slight Erosion	Moderate Erosion	Severe Erosion
0	1.00	.96	.89	0	1.00	.94	.79
1	1.00	.96	.88	1	1.00	.93	.78
2	1.00	.96	.87	2	1.00	.92	.77
3	.99	.95	.86	3	.99	.91	.76
4	.99	.95	.86	4	.98	.91	.75
5	.98	.94	.85	5	.97	.90	.74
6	.98	.93	.85	6	.96	.89	.73
7	.97	.92	.84	7	.95	.88	.72
8	.96	.91	.83	8	.95	.87	.71
9	.95	.90	.82	9	.94	.86	.70
10	.94	.89	.81	10	.93	.85	.69
11	.93	.88	.80	11	.92	.84	.68
12	.92	.87	.79	12	.91	.83	.67
13	.91	.86	.77	13	.89	.81	.66
14	.90	.85	.76	14	.88	.80	.65
15	.89	.84	.75	15	.87	.79	.64
16	.88	.82	.74	16	.86	.78	.63
17	.87	.81	.73	17	.85	.77	.62
18	.86	.79	.72	18	.83	.76	.60
19	.84	.78	.71	19	.82	.74	.59
20	.83	.76	.69	20	.80	.72	.57
21	.82	.75	.68	21	.79	.71	.56
22	.80	.73	.66	22	.77	.70	.55
23	.78	.71	.64	23	.75	.68	.53
24	.76	.69	.63	24	.73	.66	.51
25	.74	.68	.61	25	.71	.64	.49
26	.73	.66	.60	26	.69	.63	.48
27	.71	.64	.58	27	.68	.61	.46
28	.69	.62	.56	28	.66	.59	.44
29	.67	.60	.54	29	.64	.57	.42
30	.65	.58	.52	30	.62	.55	.39
31	.62	.56	.50	31	.59	.52	.38
32	.60	.54	.47	32	.57	.50	.35
33	.58	.52	.45	33	.55	.48	.33
34	.57	.51	.44	34	.53	.47	.32
35	.55	.50	.42	35	.52	.45	.30
36	.53	.48	.40	36	.50	.43	.28
37	.52	.47	.39	37	.49	.42	.27
38	.51	.45	.38	38	.48	.41	.26
39	.50	.45	.37	39	.47	.40	.25
40	.49	.44	.36	40	.46	.39	.24
41	.48	.43	.35	41	.45	.38	.23
42	.47	.42	.34	42	.44	.37	.22
43	.46	.42	.33	43	.43	.36	.22

Assessment of Farm Homesites and Rural Residential Land

A farm homesite is the part of the farm parcel used for residential purposes and includes the lawn and land on which the residence and garage are situated. Areas in gardens, non-commercial orchards, and similar uses of land are also included.

Rural residential land may include farmland that is incidental to the primary residential use. It is generally comparable in value to the farm homesite. Both are subject to the state equalization factor and both should be assessed at the same percentage of market value as urban property. Whenever possible, use the sales comparison approach to value farm homesites and rural residential land.

Assessment of farm residences

Assess farm residences according to market value in the same manner as urban residences are assessed. Refer to the Residential section of the Illinois Real Property Appraisal Manual for valuation of farm residences.

Assessment of farm buildings

The valuation of farm buildings is the final component in the assessment of farm real estate. The law requires farm buildings, which contribute in whole or in part to the operation of the farm, to be assessed as part of the farm. They are valued upon the current use of those buildings and their respective contribution to the productivity of the farm. Farm buildings are assessed at $33^{1}/_{3}$ percent of their contributory value. The state equalization factor is not applied to farm buildings.

Valuation of farm buildings based upon contribution relies on theory as well as reality. Farm buildings are usually an integral part of the farm. When farms are sold, the land and improvements are valued together. The portion of this value attributable to farm buildings depends upon the degree to which they contribute to farming operations. Some farm buildings, even though they are in good physical condition, may play a minor role in the operation of the farm and have little value. These same buildings on another farm may be vitally important to the farming operation. The value of the farm buildings in these two instances is different.

The sales comparison, or market, approach and income approach to value are difficult to apply. The sales comparison, or market, approach is inadequate because farm buildings are rarely sold in isolation. The land and buildings are considered together in valuing the farm. The same problem arises in using the income approach. It is difficult to attribute a portion of the farm income solely to the buildings.

Value must be based on cost. This entails a third problem — depreciation. Since most farm buildings are constructed in the hopes of increasing efficiency or productivity, the undepreciated cost of the building will approximate market value when the building is new. The undepreciated cost of the building may be quite different than the value as the building ages. This difference between actual cost of replacement and the value of the building is **depreciation**.

Replacement cost is the cost of replacing an existing structure with an equally desirable structure having similar, if not the same, utility. The difference between replacement cost and **reproduction cost** is essentially that reproduction cost is the cost of constructing a replica of the building with the same design, materials, and quality of workmanship, while replacement cost is the cost of a contemporary building of equal utility. The concept of replacement cost evolves from the **Principle of Substitution** that value of property is no more than the cost of acquiring an equally desirable substitute. Replacement cost is the upper limit of building value.

Depreciation is the difference between the RCN and current value. Depreciation can be in the form of physical deterioration, functional obsolescence, or economic obsolescence.

Physical deterioration is a loss in the physical ability of a building to withstand normal use. Deterioration results from use, wear and tear, structural defects, and decay. Physical depreciation is observable and identifiable.

Functional obsolescence is a loss in value due to characteristics of the building which cause a failure of the building to serve the purpose for which it was intended. Inadequacy may result from poor design, surplus capacity, and changes in farming techniques. Functional inadequacy causes a loss in desirability and usefulness.

Economic obsolescence is a loss in value due to changes in the economic environment of the farm. Economic obsolescence results from external influences such as land-use changes, government regulations, and farm market conditions. Economic obsolescence causes loss in desirability and utility.

Depreciation reflects loss in value due to all possible factors. Value of contribution to productivity can be determined by deducting all depreciation from replacement costs. This value will reflect such factors as improper design (functional obsolescence), neglect of repairs (physical deterioration), and more stringent government regulations (economic obsolescence).

Estimation of farm buildings' contribution to the operation of the farm first requires a thorough inspection of the buildings. The inspection should include the structural components of the buildings and their functional capacity. Record the following structural details:

- measurements,
- excavation,
- foundation,
- framing exterior walls,
- floors,
- roof,
- interior partitions,
- electric wiring,

- plumbing,
- heating,
- ventilation,
- built-in equipment, and
- any other permanent features.

Functional features to note include

- relative location,
- current use,
- capacity (*e.g.* too large, too small),
- design, and
- other possible uses.

Physical deterioration is observed during the inspection of the property. Economic obsolescence will require investigation into such factors as government regulation changes, current market fluctuations, and any land use changes of the surrounding property.

The cost tables in this section are provided as an aid in the development of replacement costs of typical farm buildings. The application of the cost tables is much the same as the cost tables in other sections of the manual. Select the costs for a comparable building and adjust this cost for variations from the model buildings.

To estimate the farm building's contribution to productivity of the farm, follow the procedure below.

Step 1

Estimate RCN of the building, in its current use.

- Measure the square feet of area being used.
- Decide the type of structure that provides the same utility for the current use.
- Multiply the square foot area by the replacement cost per square foot for a building of the same utility.

This step in the procedure allows for both function and economic depreciation. Remember that the existing type of structure may well provide the highest utility.

Step 2

Estimate the remaining physical life of the existing structure. This step allows for physical depreciation.

Step 3

Compute REL factor.

- Select a typical life expectancy figure from the typical life expectancies table on Page 40 for the existing structure.
- Divide the remaining physical life by typical life expectancy, giving REL.

Step 4

Multiply the RCN by the REL factor to find the value of the farm building according to its contribution to the productivity of the farm. **Remember, this procedure does not apply to farm residences.**

Summary

Since the passage of the Farmland Assessment Law (P.A. 82-121) in 1981, the assessment of farmland has been based upon net income to the farmland as determined by land productivity and use. Land use is determined through the use of aerial photographs and visual inspection. Land productivity is determined through the use of soil maps, productivity indexes, and all other available data.

Farmland is separated into the four categories — cropland, permanent pasture, other farmland, and wasteland. Cropland, permanent pasture, and other farmland are assessed based upon PI which involves the identification of soil types; selection of PIs for average level management; adjustment of PIs for slope, erosion, and subsoil conditions; measurement of areas of soil types; selection of per acre assessed values for individual soil types or for weighted PIs from the table of values certified each year by the Illinois Department of Revenue; adjustment of assessed values for land use; and summation of assessed values for all farmland. Wasteland is assessed based on its contributory value.

Rural residential land and farm homesites are appraised according to market value. Customary appraisal procedures, such as the sales comparison, or market, approach and the income approach, are used in the valuation of these types of rural land. Farm residences are valued as part of the farm, using the same methodology as urban residences.

Farm buildings are valued according to current use and contribution to the productivity of the farm. All buildings are inspected, measured, and sketched on a PRC. In most cases, they are shown in the sketch space in their proper relative location to each other. Buildings are numbered consecutively with the number designation carried over to a summary of buildings, types, sizes, general descriptions, and tabulation of values.

Building replacement costs are computed from cost schedules developed for each type of structure and used uniformly throughout the jurisdiction. Depreciation allowances are carefully determined based upon the condition, desirability, and degree of usefulness of each structure. The total of all building valuations should represent the value which their presence contributes to the productivity of the farm.

General Purpose Barns

One-story barns (per SFFA)

Based on 10' height at eaves

Base specifications; Foundation — concrete or masonry piers; Roof — double pitch gable style; Floor — dirt; Electric and wiring — minimal service; Plumbing — two or less cold water outlets; Interior construction — two or less stalls and portioned feed room.

	Construction type			
	Wood frame	**Masonry**	**Steel frame**	**Pole frame**
Base price	$26.50	$25.97	$23.75	$23.40
+ OR - for each eave height variance	.51	.50	.46	.45

Base costs reflect the following basic exterior walls: wood frame, steel frame, and pole frame are board and batten, wood siding or standard guage corrugated metal. Masonry barns include concrete block and average quality brick.

Adjustments

Continuous concrete foundations and footings	1.64	Gambrel style roof	3.81
Concrete floor	3.21	Gothic style roof	4.50
No electricity	-0.56	Wood floor loft (per SF loft area)	7.50
+ or - for no water service or extensive water service	0.49		

Size adjustments

	Floor	Factor	Floor	Factor		Floor	Factor
Less than	1,000	1.000	4,000	.870		7,000	.800
	2,000	.965	4,400	.850		8,000	.780
	2,400	.930	5,000	.840		9,000	.765
	3,000	.905	5,600	.830	over	10,000	.750
	3,600	.890	6,000	.810			

Two-story barns (per total SFFA)

Based on 10' average floor height

Base specifications; Foundation — concrete or masonry piers; Roof — double pitch gable style; Floor — dirt; Second floor — wood planks over wood frame; Electric and wiring — minimal service; Plumbing — two or less cold water outlets; Interior construction — two or less stalls and portioned feed room.

	Construction type			
	Wood frame	**Masonry**	**Steel frame**	**Pole frame**
Base price	$20.37	$19.72	$18.33	$17.36
+ OR - for each eave height variance	.46	.44	.36	.38

Base costs reflect the following basic exterior walls: wood frame, steel frame, and pole frame are board and batten, wood siding or standard guage corrugated metal. Masonry barns include concrete block and average quality brick.

Adjustments

Continuous concrete foundations and footings	.82	Gambrel style roof	1.91
Concrete floor	1.62	Gothic style roof	2.25
No electricity	-0.56	Wood floor loft (per SF loft area)	7.50
+ or - for no water service or extensive water service	0.49		

Size adjustments

	Floor	Factor	Floor	Factor		Floor	Factor
Less than	2,000	1.000	5,600	.830		10,000	.750
	3,000	.905	6,000	.810		12,000	.746
	4,000	.870	7,000	.800		14,000	.726
	4,400	.850	8.000	.780	over	15,000	.719
	5,000	.840	9,000	.765			

Typical life expectancies

Grain bins	30
Silos	30
Barns	30
Stables	30
Poultry houses	20
Confinement barns	20
Equipment storage sheds	20
Miscellaneous sheds	15
Pole buildings	20
Dairy barns	30
Corn cribs	15

Sample Appraisal - Barn

Subject – Two-story barn
Grade – C
Remaining physical life – 15 years
Specifications – 34’ x 60’ x 20’ height to eaves
Foundation – concrete wall and footings
Walls – Vertical wood siding on wood framing, wood sash windows, and wood batten doors
Floor – Concrete

Step 1 — Base square foot price from schedule	$	20.37
Step 2 — Base price adjustments		
Foundation, continuous concrete wall		0.82
Floors main floor concrete		1.62
Electricity and wiring, no service		-0.56
Total	**$**	**22.25**
Step 3 — Wall height adjustment		
Base price includes a 10’ avg. story height, subject 20’ two-story, no adjustment		
Step 4 — Size adjustment percentage		
Calculate SFFA.		
34’ X 60’ X 2 = 4,080 SF		
Use the size adjustments table to find the adjustment percentage for 4,080 SF	x	.870
Total base price	**$**	**19.36**
Step 5 — Replacement cost new		
Multiply total base price by the SFFA to obtain replacement cost new	x	4,080
		$78,988.80
Step 6 — REL factor		
Divide the remaining physical life by the typical life from the Typical life expectancy table.		
15 years ÷ 30 years = 0.50 REL factor		
Step 7 — Full value of the building		
Multiply the REL factor by the RCN from Step 5 to find the full value	x	0.50
		$39,494.40

Pole frame buildings

Base price is for pole buildings with wood poles 15' to 20' o.c., wood truss roof, wood or metal siding, earth floor, one large sliding door, one service door, and minimum electric.

Type	Eave height	Price per SF of ground area 600	850	1,000	1,200	1,500	2,000	2,500	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000
Four sides closed	8'	14.15	13.05	12.05	11.55	11.75	11.10	10.25	10.10	9.40	9.20	8.65	8.50	8.45	8.40	8.20
	10'	14.75	13.60	12.60	12.05	11.80	11.35	10.70	10.55	9.80	9.60	9.10	8.80	8.75	8.75	8.50
	12'	15.30	14.10	13.05	12.50	12.25	11.85	11.10	10.90	10.10	10.00	9.45	9.25	9.10	9.10	8.80
	14'	15.85	14.60	13.50	12.95	12.65	12.20	11.50	11.30	10.45	10.30	9.75	9.50	9.45	9.40	9.10
	16'	16.50	15.15	14.05	13.40	13.20	12.70	12.05	11.75	10.90	10.70	10.05	9.80	9.70	9.65	9.45
	18'	17.65	15.60	15.30	14.70	14.25	13.50	12.70	12.25	12.00	11.60	11.00	10.60	10.15	10.10	9.75
One side open	8'	11.75	10.95	10.25	10.15	9.95	9.90	8.95	8.85	8.55	8.10	7.60	7.55	7.50	7.45	7.40
	10'	12.25	11.40	10.70	10.35	10.30	10.20	9.30	9.25	8.90	8.45	8.00	7.90	7.85	7.85	7.65
	12'	12.70	11.85	11.10	10.75	10.70	10.65	9.45	9.40	9.20	8.90	8.30	8.10	8.00	8.00	7.90
	14'	13.15	12.25	11.50	11.15	11.10	11.00	10.30	9.95	9.50	9.10	8.60	8.45	8.35	8.30	8.20
	16'	13.70	12.70	11.95	11.50	11.45	11.30	10.55	10.35	9.90	9.40	8.85	8.80	8.75	8.70	8.50
	18'	14.65	13.10	13.00	12.60	12.55	12.15	10.80	10.75	10.60	10.20	9.70	9.55	9.55	9.00	8.80
Four sides open	8'	6.40	6.40	6.40	6.20	6.20	6.20	6.05	6.05	6.05	5.85	5.85	5.85	5.70	5.70	5.70
	10'	6.65	6.65	6.65	6.45	6.45	6.45	6.20	6.20	6.20	6.15	6.15	6.15	5.95	5.95	5.95
	12'	6.90	6.90	6.90	6.60	6.60	6.60	6.40	6.40	6.40	6.30	6.30	6.30	6.10	6.10	6.10
	14'	7.15	7.15	7.15	6.85	6.85	6.85	6.70	6.70	6.70	6.55	6.55	6.55	6.30	6.30	6.30
	16'	7.10	7.10	7.10	7.50	7.50	7.50	7.40	7.40	7.40	7.35	7.35	7.35	6.55	6.55	6.55
	18'	7.95	7.95	7.95	7.75	7.75	7.75	7.55	7.55	7.55	7.10	7.10	7.10	6.85	6.85	6.85

Floor adjustments based on per SF floor area

Concrete floor	$3.80
Crushed rock	$0.67
Asphalt floor	$2.38

Misc. adjustments based on building SF

Insulation	$0.95
No electric	$0.62
Water service	$0.55
Space heaters	$1.20

Door adjustments based on SF of door area

Extra sliding door	$15.50
Service door	$45.00

Lean-tos

Base costs include: Pier foundation, vertical wall siding or corrugated metal walls; shed type roof of single pitch; earth floor, minimum electric. Walls from 8' to 12' rise average 10' at center.

SF area	Wood frame	Pole frame
240	$12.85	$9.30
300	11.20	8.20
400	11.10	8.10
500	10.95	8.00
600	10.65	7.75
800	10.35	7.55
1,000	10.00	7.30
1,200	9.40	6.85
1,400	9.00	6.60

Adjustments to base costs

Concrete floor and foundation	$2.10
No electric	- 0.47
Height adjustment for each foot avg.	0.20

Wood frame corn cribs

Foundation — Concrete walls and footings; Walls — Spaced boards on wood frame; Roof — Gable style roof with composition or wood shingles; Drive through; No mechanicals.

SF ground area	Wood spaced boards on wood frame	Wire mesh on wood frame
80		$36.35
100		35.55
150		28.25
175		26.80
200		24.15
250		23.35
300	$49.05	22.80
400	43.50	22.15
500	37.85	20.95
700	33.05	
1,000	32.15	
1,500	30.80	
2,000	27.35	
2,500	23.15	

Poultry buildings

Single-story egg laying buildings (SFFA)

Based on 8' eave height

Base price includes concrete or masonry foundation; Concrete slab floor with manure trenches; Gable roof; electrical wiring and lighting.	Construction type			
SF floor area	**Wood frame**	**Masonry**	**Steel frame**	**Pole frame**
1,000	$20.25	$25.25	$21.50	$17.30
1,500	18.60	23.80	19.60	15.45
2,000	18.00	22.45	18.80	15.05
3,000	17.65	22.05	18.75	14.90
4,000	17.35	21.65	18.40	14.80
5,000	17.00	21.20	18.05	14.55
7,500	16.50	20.55	17.50	14.10
10,000	15.95	19.90	16.95	13.65
15,000	15.35	19.15	16.30	13.10
20,000	14.70	18.30	15.60	12.55
25,000	14.55	18.15	15.45	12.40
over 25,000	14.20	17.70	15.05	12.10
Add or subtract for each foot of height	.40	.50	.45	.35
Additional adjustments per SFFA				
Cage equipment systems include single deck cages, V trough watering and feeding systems and fogging cooling.	10.70	10.70	10.70	10.70
For automatic feeders, water cup systems, and egg collection system add an addition to the $10.70 equipment cost.	4.90	4.90	4.90	4.90

Multi-story egg laying buildings (based on ground SF)

Based on 8' average height per story

Base price includes concrete or masonry foundation; Concrete slab floor with manure trenches on 1st floor and wood plank or wire cage catwalk upper floors; Gable roof; electrical wiring and lighting.	
For multi-story buildings, use 75% of the base SF cost from the single-story cost tables for each story over one.	Example: Two-story wood frame building with 1,500 SF on each floor. Average height is 8' per floor. 1st floor base cost from single-story table = $ 18.60 2nd floor base cost factor 75% x 18.60 = 13.95 Total multi-story cost = 32.55 Ground floor area 1,500 x 32.55 x 1,500 Equals total cost for building before adjustments 48,825

Single-story broiler building (SFFA)

Based on 8' eave height

Base price includes dirt floor, galvanized metal or wood siding on frame, partial curtain wall, insulated walls and ceiling, gable roof, electrical wiring and lighting, water service, and some subdivision.	Construction type	
SF floor area	**Steel frame**	**Pole frame**
1,000	$13.60	$12.65
1,500	12.20	11.00
2,000	12.10	10.90
3,000	11.85	10.70
4,000	11.65	10.50
5,000	11.40	10.30
7,500	11.10	10.15
10,000	10.70	10.00
15,000	10.30	9.65
20,000	9.90	9.30
25,000	9.80	8.90
30,000	9.75	8.80
40,000	9.65	8.65
over 40,000	9.55	8.60
Add or subtract for each foot of height	.23	.21
Additional adjustments per SFFA		
Equipment systems include feeders, waterers, suspended infrared heaters, curtains, automatic ventilation control.	3.75	3.75

Concrete liquid manure tanks

Size cubic feet	Gallon capacity	Cost each
4,000	30,000	$16,160
8,000	60,000	26,560
12,000	90,000	43,440
16,000	120,000	56,400

Steel frame round wire mesh corn crib

Diameter	Height to eave	Bushel capacity	Cost each
10'	12'	315	$1,010
	16'	419	1,310
	20'	524	1,610
12'	12'	452	1,405
	16'	603	1,835
	20'	754	2,265
	24'	905	2,690
14'	16'	821	2,450
	20'	1,026	3,030
	24'	1,232	3,605
16'	16'	1,072	3,150
	20'	1,340	3,900
	24'	1,609	4,660
	28'	1,876	5,415

Cylindrical wire mesh with metal cone roof, steel frame, concrete slab.

Confinement buildings

Swine farrowing barns

Based on 10' eave height

Base price includes concrete or masonry foundation; Concrete slab floor; Gable roof; Electrical wiring and lighting; Water service; Insulation, vents, and feed storage room.	Construction type			
SF floor area	**Wood frame**	**Masonry**	**Steel frame**	**Pole frame**
800	$35.40	$40.80	$34.95	$34.95
1,000	33.85	39.00	33.30	33.30
1,500	31.05	35.80	30.55	30.55
2,000	30.15	34.80	29.70	29.70
2,400	29.60	34.10	29.10	29.10
3,000	29.00	33.45	28.50	28.50
4,000	28.40	32.75	27.95	27.95
5,000	27.80	32.10	27.35	27.35
6,000	27.50	31.75	27.10	27.10
8,000	27.25	31.40	26.75	26.75
10,000	27.05	31.15	26.60	26.60
12,000	26.85	30.95	26.40	26.40
15,000	26.75	30.85	26.30	26.30
20,000	26.65	30.70	26.20	26.20
25,000	26.55	30.60	26.10	26.10
30,000 and higher	26.45	30.50	26.00	26.00
Add or subtract for each foot of height	.62	.70	.60	.55
Adjustments				
Concrete slotted floor	5.55	5.55	5.55	5.55
Equipment of crates, waterers, and feeder per SFFA	6.60	6.60	6.60	6.60
Pit, 6' deep per SF	13.20	13.20	13.20	13.20

Swine finishing barns

Based on 10' eave height

Base price includes concrete or masonry foundation; Concrete slab floor; Gable roof; Electrical wiring and lighting; Water service; Insulation, vents, and feed storage room.	Construction type			
SF floor area	**Wood frame**	**Masonry**	**Steel frame**	**Pole frame**
800	$26.35	$31.70	$25.80	$ 24.30
1,000	25.20	30.30	24.65	23.25
1,500	23.10	27.80	22.65	21.35
2,000	22.45	27.00	22.00	20.75
2,400	22.00	26.50	21.55	20.30
3,000	21.60	25.95	21.15	19.95
4,000	21.15	25.45	20.70	19.50
5,000	20.70	24.90	20.30	19.10
6,000	20.50	24.65	20.05	18.95
8,000	20.25	24.40	19.85	18.70
10,000	20.10	24.20	19.70	18.55
12,000	20.00	24.05	19.55	18.45
15,000	19.90	23.95	19.50	18.35
20,000	19.85	23.85	19.40	18.30
25,000	19.75	23.75	19.35	18.25
30,000 and higher	19.70	23.65	19.25	18.15
Add or subtract for each foot of height	.46	.55	.45	.43
Adjustments				
Concrete slotted floor	6.90	6.90	6.90	6.90
Equipment of crates, waterers, and feeder per SFFA	5.55	5.55	5.55	5.55
Pit, 6' deep per SF	13.20	13.20	13.20	13.20

Steel grain bins
(including concrete slab floor)

Diameter & height		Bushel capacity	Cost	Diameter & height		Bushel capacity	Cost
15’	11’	1,728	$6,975	36’	18’	18,501	30,145
	15’	2,377	8,300		26’	25,010	38,605
	18’	2,957	9,340		33’	30,604	43,455
					40’	37,048	47,480
18’	11’	1,665	7,790				
	15’	3,475	9,520	42’	18’	25,791	39,725
	18’	4,320	10,710		26’	34,645	47,630
	22’	5,020	12,520		33’	42,795	56,080
	26’	5,860	14,050		40’	50,868	65,755
	32’	7,318	17,040		48’	59,832	76,100
	40’	8,880	21,170				
				48’	18’	34,473	48,025
21’	18’	5,890	13,145		22’	39,543	54,710
	22’	6,916	15,170		26’	46,036	61,170
	26’	7,955	17,005		33’	56,820	74,465
	33’	10,040	20,905		37’	62,254	82,430
	40’	12,200	23,550		48’	79,169	102,245
24’	11’	4,976	10,870	54’	36’	79,238	101,685
	15’	6,368	13,080				
	18’	7,535	15,905		46’	100,280	126,225
	22’	8,957	18,160				
	26’	10,505	20,610				
	33’	13,100	24,040				
	40’	16,075	27,065				
27’	11’	6,430	13,025	60’	40’	108,410	136,165
	15’	8,193	15,705				
	18’	10,010	18,375		48’	124,695	156,845
	27’	14,025	23,725				
	32’	16,110	28,215				
	40’	20,500	31,465				
30’	18’	12,575	21,985				
	22’	14,510	25,140				
	26’	17,133	27,955				
	33’	20,900	33,695				
	40’	25,400	36,945				

Aeration systems add $0.12 per bushel

Dryer bins add 45% to costs or factor costs by 1.45

Steel Silos (glass lined)

Includes concrete foundation, steel roof, breather bag, ladder, and platform.

Diameter	Height	Cost
14’	30’	$36,600
	40’	43,370
	50’	45,600
Add for sweep arm auger		6,610
17’	30’	50,755
	40’	56,875
	50’	62,525
Add for sweep arm auger		7,500
20’	30’	65,800
	40’	73,245
	50’	80,360
	60’	88,370
	70’	102,910
	80’	107,610
	90’	120,585
Add for sweep arm auger		7,500
Add for chain unloader		40,150
25’	40’	112,570
	50’	126,290
	60’	131,120
	70’	145,840
	80’	157,430
	90’	177,050
Add for chain unloader		44,500

Steel Silos (non-glass lined)

Includes concrete foundation, steel roof, ladder, and platform.

Diameter	Height	Cost
14’	30’	$22,920
	40’	26,440
	50’	29,970
Add for sweep arm auger		6,610
17’	30’	29,820
	40’	34,230
	50’	39,078
Add for sweep arm auger		7,500
20’	30’	40,840
	40’	47,160
	50’	53,620
	60’	59,940
	70’	66,255
	80’	70,810
	90’	77,775
Add for sweep arm auger		8,960
Add for chain unloader		40,150
25’	40’	78,750
	50’	88,410
	60’	91,380
	70’	98,725
	80’	104,895
	90’	114,500
Add for chain unloader		44,500

Concrete Silos

Per foot of height. Includes concrete foundation

Diameter	Stave	Poured	Add for unloader
12’	405	510	10,750
14’	450	565	10,750
16’	490	730	11,635
18’	530	740	11,635
20’	610	830	13,355
24’	740	1030	13,355
30’	1065	1340	13,355

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