

**NUTRIENT BMP ENDORSEMENT FOR MPCl POLICY**

(This is a continuous endorsement. Refer to section 2 of the Common Crop Insurance Policy.)

This Nutrient BMP Endorsement is reinsured by the Federal Crop Insurance Corporation (FCIC) under the authority of section 508(h) of the Federal Crop Insurance Act, as amended (7 U.S.C. 1508(h)). The provisions of the Endorsement may not be waived or varied in any way by any agent or employee of FCIC or us. In the event we cannot pay your loss, your claim will be settled in accordance with the provisions of this endorsement and paid by FCIC. No state guarantee fund will be liable to pay the loss.

Agreement to Insure: In return for the payment of the additional premium for the coverage contained herein, this endorsement will be attached to and made part of the Common Crop Insurance Policy Basic Provisions (Basic Provisions) and Coarse Grains Crop Provisions, subject to the terms and conditions described herein. In the event of a conflict between the Basic Provisions, the Coarse Grains Crop Provisions and this endorsement, this endorsement will control.

The Nutrient BMP Endorsement is available only for corn and only in those counties in the pilot states (IA, MN, PA and WI) for which the MPCl actuarial documents provide a premium rate. This Endorsement will remain in effect for the 2003 crop year.

**1. Eligibility**

This Nutrient BMP Endorsement is a supplemental endorsement and attaches to the MPCl Coarse Grains Crop Provisions and Basic Provisions. The following provisions are applicable for the purposes of this endorsement only:

- A. You must purchase an MPCl Coarse Grains Crop Policy to be eligible to purchase this Nutrient BMP Endorsement for MPCl Policy. You shall not be eligible for this endorsement if you have purchased a Crop Revenue Coverage policy, or a Catastrophic Risk Protection Endorsement.
- B. The coverage offered under this endorsement is in addition to any coverage offered under your MPCl Coarse Grains Policy and nothing herein affects the manner in which an indemnity is paid under the MPCl Coarse Grains Policy or any other terms and conditions of the MPCl Coarse Grains Policy.
- C. If at any time your MPCl Coarse Grains Policy is canceled or terminated, this Nutrient BMP Endorsement is automatically terminated as of the same date and no indemnity will be due.
- D. For and in consideration of the additional premium you have paid for this Nutrient BMP Endorsement, we agree to pay you the indemnity due to you, if any, calculated in accordance with this endorsement.
- E. You must select the Nutrient BMP that will be insured. You must select one of the following three options on the Application for Endorsement:
  - Option A: Phosphorus BMP for Corn
  - Option B: Nitrogen BMP for Corn
  - Option C: Nitrogen and Phosphorus BMP for Corn
- F. This Nutrient BMP Endorsement shall not be applicable to any crop other than corn. This endorsement shall not make an indemnity payment in conjunction with any prevented planting or replanting payment under the MPCl Coarse Grains Policy.
- G. To be eligible for coverage under this Nutrient BMP Endorsement, you must make application by the sales closing date.

**2. Definitions**

**Application for Endorsement** – The form used to apply for insurance coverage under this endorsement. The application for endorsement must contain all the information

required by us to insure the crop. Applications that do not contain all social security numbers and employer identification numbers, as applicable (except as stated herein), the crop consultant's professional certification and certification number, crop, type, variety, plan of insurance, and any other material information required to insure the crop, are not acceptable.

**Approved Nitrogen BMP** – A management practice in which nitrogen is applied in strict conformity with the nutrient BMP plan and the agreement between you and us based on a documented nitrogen management recommendation by a crop consultant. Only an approved nitrogen BMP that meets the standards set forth in Schedule 2 and is recognized by CSREES, NRCS, or a similar entity, approved by us, as compatible with the agronomic and weather conditions in the applicable state and county is insurable.

**Approved Nitrogen and Phosphorus BMP** – A management practice in which nitrogen and phosphorus are applied in strict conformity with the nutrient BMP plan and the agreement between you and us based on a documented nitrogen and phosphorus management recommendation by a crop consultant. Only an approved nitrogen and phosphorus BMP that meets the standards set forth in Schedules 1 and 2 and is recognized by CSREES, NRCS, or a similar entity, approved by us, as compatible with the agronomic and weather conditions in the applicable state and county is insurable.

**Approved Nutrient BMP** – A management practice in which nutrients are applied in strict conformity with the nutrient BMP plan and the agreement between you and us based on a documented nutrient management recommendation by a crop consultant. The approved nutrient BMP will be one recommended by CSREES, NRCS, or a similar entity, approved by us, as compatible with the agronomic and weather conditions in the applicable state and county.

**Approved Phosphorus BMP** – A management practice in which phosphorus is applied in strict conformity with the nutrient BMP plan and the agreement between you and us based on a documented phosphorus management recommendation by a crop consultant. Only an approved phosphorus BMP that meets the standards set forth in Schedule 1 and is recognized by CSREES, NRCS or a

similar entity, approved by us, as compatible with the agronomic and weather conditions in the applicable state and county is insurable.

**ARCPACS** – The federation of certifying boards in agriculture, biology, earth and environmental sciences. This certification program identifies individuals who have met and maintained standards in education, knowledge, and experience in the following areas: agronomy, crops, soils, horticulture, plant pathology, and weed science.

**Best Management Practice (BMP)** – The management of inputs to provide for economic and agronomic efficiency in production agriculture.

**BMP Strips** – The strips directly adjacent to and on either side of the check strip, that are equal in width and length to the check strip.

**Check Strip** – An area of production fertilized at a rate greater than the BMP rate that is to be representative of the yields of the management unit where it is located. The crop consultant will determine the check strip location.

**Check Strip Production** – The appraised yield of the crop in the check strip.

**CSREES** – Cooperative State Research, Education and Extension Service, an agency within USDA.

**Corn** – A corn crop grown for harvest as grain.

**Crop** – Crop grown on insurable acres contained in the endorsement provisions.

**Coverage Level** – One minus the deductible.

**Crop Consultant** – An individual, approved by us, who has no financial or personal interests in your farming operation. This person may not be related to you or living in the same household with you. The person must have received professional certification and continuing education from ARCPACS, National Alliance of Independent Crop Consultants or American Society of Agronomy in a discipline applicable to the area of crop science, or an individual approved by a governmental entity as qualified to establish a nutrient management plan.

**Crop Revenue Coverage (CRC)** – The program of federally subsidized and reinsured crop insurance that guarantees yields and revenues against specified causes of loss.

**Deductible** – The amount of loss not covered by the endorsement, which is 5 (five) percent.

**Direct Loss** – The reduction in quantity of the insured crop solely and directly caused by the insured approved nutrient BMP.

**Indemnity** – Compensation for insured losses incurred by you.

**Loss** – The reduction in quantity of insured property directly resulting from an insured peril.

**Management Unit** – The acreage to which an approved nutrient BMP is applied. Each management unit will contain only one check strip. A management unit will be:

1. No larger than a basic unit as defined in section 1 of the MPCI Basic Provisions if you have chosen the basic unit structure for your insured acres.
2. No larger than an optional unit as defined in section 34(b) and (c) of the MPCI Basic Provisions if you have divided your insured acres into optional units.

3. A portion of an optional or basic unit that is entirely within the boundaries of the optional or basic unit.
4. You must meet the following:
  - a. You must plant the crop in a manner that results in a clear and discernible break in the planting pattern at the boundaries of each management unit; and,
  - b. All management units you select for the crop year are identified on the acreage report for that crop year.
  - c. The insured must have records that are acceptable to us of planted acreage for each management unit.

**Multiple Peril Crop Insurance (MPCI)** – The program of federally subsidized and reinsured crop insurance that guarantees yields against specified causes of loss.

**NRCS** – Natural Resources Conservation Service, an agency within USDA.

**Nitrogen** – An element necessary for crop growth, generally referred to as N, that can be available to the crop from inorganic and organic sources.

**Notice of Loss** – The form titled “Notice of Damage or Loss for Nutrient BMP Endorsement” that you will use to notify us of probable loss under this endorsement.

**Nutrient** – An element essential for plant growth that can be applied to the soil in both organic and inorganic forms.

**Nutrient BMP Plan** – A document, prepared in cooperation with a crop consultant that describes the amount and manner in which nutrients will be applied to the insured acres. Only approved phosphorus and/or nitrogen BMPs are insurable (see Schedules 1 and 2).

**Nutrient BMP Production** – The appraised yield of the crop in the BMP strips.

**Phosphorus** – An element necessary for crop growth, generally referred to as P2O5, that can be available to the crop from synthetic and organic sources.

**Phosphorus Soil Test** – A soil test to determine the availability of phosphorus in the soil. The proper phosphorus soil test will be one recommended by CSREES, NRCS, or a similar entity, approved by us, as compatible with the agronomic and weather conditions in the state and county (see Schedule 1) and performed by a competent soil testing laboratory certified by the Iowa Department of Agriculture and Land Stewardship or the Minnesota Department of Agriculture, or operated by the Penn State University or the University of Wisconsin.

**Physiological Maturity** – The point when all the kernels on the ear have attained their maximum dry matter accumulation. The development of a black or brown abscission layer at the kernel tip and kernel moisture below 40 percent are indicators of physiological maturity.

**Summary of Coverage** – The list of crops, locations, premiums and amount of insurance for which you have made an Application for Endorsement.

**USDA** – The United States Department of Agriculture.

**“We”, “Us” and “Our”** – The company providing this coverage.

**Yield Appraisal** – A direct measurement of yield as determined by our representative in a manner described in

the Nutrient BMP Loss Adjustment Handbook.

**“You” and “Your”** – The person or persons named as the insured on the Application for Endorsement and Summary of Coverage.

### 3. Insurance Guarantees

(a) In lieu of section 3 of the MPCCI Basic Provisions, the production guarantee for this endorsement is the difference in yield between the check strip production and the nutrient BMP production that exceeds the deductible, except that the check strip production and the nutrient BMP production cannot exceed 135 percent of the approved yield per acre.

(b) The amount of insurance per management unit will be shown on your Summary of Coverage and cannot exceed an amount calculated as follows:

- (1) Multiply 1.35 by the approved yield;
- (2) Multiply the result of paragraph (1) by your coverage level;
- (3) Multiply the result of paragraph (2) by the price election;
- (4) Multiply the result of paragraph (3) by the insured number of acres in the management unit; and
- (5) Multiply the result of paragraph (4) by your share.

(c) Amount of Insurance Example. You insured 80 acres of corn that has an approved yield of 120 bushels per acre, the coverage level is 95 percent, a 100 percent crop share, and a price election of \$2.20 per bushel. The amount of insurance is calculated in the following manner:

$$1.35 \times \text{approved yield} \times \text{coverage level} \times \text{price election} \times \text{number of insured acres} \times \text{crop share} = \text{amount of insurance}$$

$$1.35 \times 120 \times 0.95 \times \$2.20 \times 80 \times 100\% = \$27086.40$$

(d) If you misreport any information, we may revise the premium and/or liability to the amount we determine to be correct or to conform to the information reported. This revision may result in a lower limit of insurance than if the information had been correctly reported.

(e) We may at any time require an acreage measurement survey of any insured crop or portion thereof to be completed. If you do not agree with our measurements, you may have the acreage measured at your expense and provide the information to us. We will use the measurement we determine to be most accurate.

(f) You must answer all underwriting questions accurately on the Application for Endorsement.

### 4. Insured Crop

In lieu of section 5 of the MPCCI Coarse Grains Crop Provisions and in accordance with section 8 of the MPCCI Basic Provisions:

(a) The crop insured under the terms of this endorsement will be any crop of corn for which premium rates are provided by the MPCCI actuarial documents:

- (1) In which you have a share;
- (2) That is adapted to the area based on days to maturity and is compatible with agronomic and weather conditions in the area;

- (3) That is not:
  - (i) Interplanted with another crop; or
  - (ii) Planted into an established grass or legume;
- (4) That is shown on your accepted application and grown on insurable acreage;

(5) That is the first planted crop of corn grown which is planted between the earliest planting date and the final planting date; and

(6) That is a subsequent replanted crop of corn grown when uninsured damage occurs which is planted between the initial planting date and the final planting date or during the late planting period; and

(b) No insurance is provided for:

(1) Any crop other than corn grown for grain including: hybrid corn seed, silage corn, popcorn, sweet corn, high-amylase, high-oil, high-protein, flint, flour, Indian, blue corn, forage corn or open pollinated corn;

(2) A crop of corn that is grown on acreage where a crop of corn was planted in the previous crop year; and

(3) A crop that is irrigated.

### 5. Insurable Acreage

(a) In lieu of section 9 of the MPCCI Basic Provisions, all acreage in a management unit, including acreage utilized for the check strip, planted to the insured crop in which you have a share is insurable, except acreage:

(1) That has not been planted and harvested within one of the three previous crop years, unless:

- (i) Such acreage was not planted:
  - a. To comply with any other USDA program;
  - b. Because of crop rotation (e.g., corn, soybean, alfalfa; and the alfalfa remained for four years before the acreage was planted to corn again);
  - c. Due to an insurable cause of loss that prevented planting; or
  - d. Because a perennial tree, vine or bush crop was grown on the acreage.
- (ii) Such acreage was planted but was not harvested due to an insurable cause of loss; or
- (iii) The MPCCI crop provisions specifically allow insurance for such acreage;

(2) That has been strip-mined, unless otherwise approved by written agreement, or unless an agricultural commodity other than a cover, hay or forage crop (except corn silage), has been harvested from the acreage for at least five crop years after the strip-mined land was reclaimed;

(3) That is interplanted, unless allowed by the MPCCI crop provisions;

(4) That is otherwise restricted by the MPCCI crop provisions; or

(5) That is planted in any manner other than as specified in the endorsement provisions for the crop unless a written agreement to such planting exists.

- b) We may restrict the amount of acreage that we will insure to the amount allowed under any acreage limitation program established by the USDA if we notify you of that restriction prior to the sales closing date.

#### 6. Insurance Period

- (a) In lieu of section 11(a) of the MPCCI Basic Provisions, coverage begins on each management unit on the date the check strips are established.

#### 7. Special Conditions

- (a) For coverage under this endorsement to be in force, you must:
- (1) Carry out farming practices on each management unit in accordance with the nutrient BMP plan and the approved nutrient BMP for which the premium rates, production guarantees or amounts of insurance have been established;
  - (2) Agree to the placement of one check strip in each management unit at a location determined by a crop consultant. The check strip must be between forty (40) and sixty (60) feet in width and run the length of the field, excluding endrows;
  - (3) Manage the check strip in the same manner as the management unit, except for the level of nitrogen and/or phosphorus applied, depending on the option selected, including, but not limited to, the same hybrids, varieties, pest management practices, tillage practices, timeliness of practices, etc.;
  - (4) Permit a representative, chosen by us or USDA to examine the crop and nutrient BMP plan as often as reasonably required, and collect soil, plant and other materials. Refusal to permit examination of the crop and nutrient BMP plan will void the BMP endorsement; and
  - (5) Agree that if you intend to file a claim, harvest of the check strip and BMP strip will be completed by you, in the presence of a representative chosen by us, at an agreed-upon time.

#### 8. Causes of Loss

- (a) In lieu of section 8 of the MPCCI Coarse Grain Crop Provisions, the insurance provided is against only unavoidable direct loss of yield to the insured acres caused by the specific cause of loss contained in Option A, B or C of this endorsement. All other causes of loss, including but not limited to the following, are NOT covered:
- (1) Loss due to non-compliance with the BMP endorsement;
  - (2) Loss due to all other non-covered causes of loss; and
  - (3) Loss caused, directly or indirectly, by environmental pollutants including improper usage or application of agricultural chemicals, whether accidental or intended.

#### 9. Premium and Charges

- (a) In addition to the premium owed under section 7 of the Basic Provisions, your annual premium amount under this endorsement is determined by the following calculations:
- (1) Multiplying the premium rate per acre times the crop share, times the insured acres, times the MPCCI price selection equals the total premium;
  - (2) Multiplying the total premium calculated in paragraph (1) times the applicable producer subsidy percentage; and
  - (3) Subtracting the result of paragraph (2) from the result of paragraph (1).
- (b) In the event the crop is damaged after coverage begins and before physiological maturity, and a loss adjustment is impossible to complete, 75 percent of the producer premium owed under this endorsement will be refunded.
- (c) Coverage will terminate if any premium due us under this endorsement is not paid by the termination date.
- (d) You will have a choice of two service options for the endorsement. The additional charges for the Full Service Option or the Custom Option are as follows:
- (1) Option 1: Full Service Option (minimum of 100 acres)
    - (i) Under the Full Service Option, we will arrange for the crop consultant to establish the check strip and you will be charged an amount of \$3.25 per acre.
    - (ii) Total additional charges for Option 1 equal \$3.25 multiplied by the number of insured acres.
    - (iii) You will receive an adjustment fee credit or refund of \$2 per acre when loss adjustment is not required.
  - (2) Option 2: Custom Option (no minimum acreage). Under this option you may choose one of two options for check strip establishment.
    - (i) You will pay an additional \$1.25 per insured acre fee for check strip establishment or a set fee of \$125 for the first check strip and \$50 for each additional check strip for check strip establishment, whichever is greater, for us to arrange establishment of the check strips; or, you may arrange for check strip establishment at your own expense. The check strips must meet underwriting standards (described in the Nutrient BMP Underwriting Guidelines).
    - (ii) Total charges for check strip establishment equals \$1.25 multiplied by the insured acres or a set fee of \$125 for one check strip and \$50 for each additional check strip, whichever is greater. If you are arranging for check strip establishment at your own expense, the charge for check strip establishment is \$0.

- (iii) The total loss adjustment charge for Option 2 equals \$2 multiplied by the number of insured acres or a set fee of \$115 per check strip and \$50 for each additional check strip, whichever is greater.
- (iv) Total additional charges for Option 2 equals the check strip establishment charge in subsection 9(d)(2)(ii) plus the total loss adjustment charge in subsection 9(d)(2)(iii).

#### 10. Duties in the Event of Damage or Loss

Your duties in the event of a loss under this endorsement:

- (a) In lieu of section 14(a)(2) of the Basic Provisions and section 10 of the Coarse Grains Crop Provisions, you must not harvest the check strip or BMP strip until you have provided notice to us of your intent to harvest the crop and our representative is present.
- (b) In lieu of section 14(b) of the Basic Provisions, you must obtain consent from us before, and notify us after you:
  - (1) Harvest any portion of the management unit, check strip or BMP strips; or
  - (2) Destroy the check strip, BMP strips or any portion of the crop in the management unit that is not harvested; or
  - (3) Put the crop in the management unit or the check strip to an alternative use; or
  - (4) Abandon any portion of the crop in the management unit or check strip.
- (c) We will not give consent for any of the actions in sections 10(b)(1) through (4) until we have made an appraisal of the production of the check strip and the Nutrient BMP Production and, if necessary, samples of soil, crop tissue or other related materials are collected.

#### 11. Settlement of Claim

- (a) We will determine your loss on a management unit basis.
- (b) We will conduct a yield appraisal of the insured crop under this endorsement only after it has reached physiological maturity.
- (c) In the event of loss or damage covered by this endorsement, we will settle your claim on any management unit in the following manner.
  - (1) We will conduct a yield appraisal of the check strip production using the loss adjustment procedures described in the Nutrient BMP Loss Adjustment Handbook. You will harvest no more than two-thirds (2/3) of the check strip, in the presence of a representative chosen by us, to determine the check strip production. The remaining area of the check strip may not be harvested until released by us.
  - (2) We will conduct a yield appraisal of the nutrient BMP production using the loss adjustment procedures described in the Nutrient BMP Loss Adjustment Handbook on the BMP strips. You will harvest no more than two-thirds (2/3) of the BMP

strip, in the presence of a representative chosen by us, to determine the nutrient BMP production. The remaining area of the BMP strip may not be harvested until released by us.

- (3) The total indemnity payment for each management unit will be computed as follows and cannot exceed your amount of insurance for that management unit shown on your summary of coverage:
  - (i) Multiply the check strip production per acre times your coverage level minus the nutrient BMP production;
  - (ii) Multiply the result of subparagraph (i) times the insured acres shown on the Summary of Coverage; and
  - (iii) Multiply the result of subparagraph (ii) times the price election times your share.
- (d) In no case will the indemnity exceed 100 percent of the loss sustained from insured perils only.
- (e) We have the right to determine all indemnities on the basis of information you submit or the information we determine to be correct.

#### 12. Report of Acreage

- (a) In addition to section 6 of the Basic Provisions, a separate annual acreage report must be submitted for the endorsement on or before the acreage reporting date contained in the Special Provisions.
- (b) Your acreage report must include the following information, if applicable:
  - (1) All acreage of the crop in the county(ies) (insurable and not insurable) in which you have a share;
  - (2) Your share at the time coverage begins;
  - (3) The date the insured crop was planted; and
  - (4) The location of the check strip for each insured management unit.

#### Option A: Phosphorus BMP for Corn

##### Insured Crop

In addition to section 4(a) of this endorsement, the crop insured will be any crop of corn grown on insurable acreage, which had a phosphorus soil test appropriate for the soil type in the state and county where the insured acreage is located performed no earlier than the autumn preceding the insured crop year.

##### Causes of Loss

In accordance with the provisions of section 8 of this endorsement, insurance is provided only against direct loss of yield to the insured acres resulting from insufficient phosphorus in the soil caused by the approved phosphorus BMP, which occurs within the insurance period.

#### Option B: Nitrogen BMP for Corn

##### Insured Crop

In addition to section 4(b) of this endorsement, no insurance

is provided for any crop of corn where nitrogen BMP recommendations were the result of soil nitrogen tests for residual nitrogen.

**Causes of Loss**

In accordance with the provisions of section 8 of this endorsement, insurance is provided only against direct loss of yield to the insured acres resulting from insufficient nitrogen in the soil caused by the approved nitrogen BMP, which occurs within the insurance period.

**Option C: Nitrogen and Phosphorus BMP for Corn**

**Insured Crop**

- (a) In addition to section 4(a) of this endorsement, the crop insured will be any crop of corn grown on insurable acreage, which had a phosphorus soil test appropriate for the soil type in the state and county where the insured acreage is located performed no earlier than the autumn preceding the insured crop year.
- (b) In addition to section 4(b) of this endorsement, no insurance is provided for any crop of corn where nitrogen BMP recommendations were the result of soil nitrogen tests for residual nitrogen.

**Causes of Loss**

In accordance with the provisions of section 8 of this endorsement, insurance is provided only against direct loss of yield to the insured acres resulting from insufficient nitrogen and/or phosphorus in the soil caused by the approved nitrogen and phosphorus BMP, which occurs within the insurance period.

### Schedule 1: Approved Phosphorus BMP Standards

An approved phosphorus BMP will be insurable under this endorsement if the available soil phosphorus level indicated by the soil test is High or Very (Excessively) High for the insured location. The designation of ranges for High and Very High soil phosphorus levels is dependent upon the soil test performed and the agronomic characteristics of a particular soil. An approved phosphorus BMP must utilize the designated phosphorus soil test appropriate for the soil type in the state and county where the insured acreage is located. The soil test must be performed no earlier than the autumn immediately preceding the crop year.

The basic standards for the approved phosphorus BMP are given below, including the soil test values for categorizing the available soil phosphorus as high or very high. For additional information about testing soil phosphorus and the phosphorus fertilization recommendations for each state, such as crediting phosphorus from manure, refer to the standard documents that are also listed below.

**Iowa** (For more information or special considerations see Iowa State University Extension Publication PM1688 *General Guide for Crop Nutrient Recommendations in Iowa* (<http://www.extension.iastate.edu/Publications/PM1688.pdf>).

Soil Test Category	Phosphorus (P) Soil Test (ppm)	
	High	Very High
Bray:		
Low Subsoil P	21-30	31+
High Subsoil P	16-20	21+
Mehlich III:		
Low Subsoil P	21-30	31+
High Subsoil P	16-20	21+
Olsen:		
Low Subsoil P	15-20	21+
High Subsoil P	12-15	16+

**Minnesota** (For more information or special considerations see University of Minnesota Extension Publication FO-3790-C *Fertilizing Corn in Minnesota* (<http://www.extension.umn.edu/distribution/cropsystems/DC3790.html>).

Soil Test Category	Phosphorus (P) Soil Test (ppm)	
	High	Very High
Bray I	16-20	21+
Olsen	12-15	16+

**Pennsylvania** (For more information or special considerations see Penn State University Extension Publication *Agronomy Guide* (<http://aggguide.agronomy.psu.edu/>) or see the Penn State Agricultural Analytical Services Laboratory *Soil Test Recommendations for Agronomic Crops*, ([http://www.aasl.psu.edu/Agro\\_Recs\\_page.htm](http://www.aasl.psu.edu/Agro_Recs_page.htm)).

Soil Test Category	Phosphorus (P) Soil Test (ppm)	
	High	Very High
Mehlich III	50+	

**Wisconsin** (For more information or special considerations see University of Wisconsin Extension Publication A3030 *Optimum Soil Test Levels for Wisconsin* (<http://www1.uwex.edu/ces/pubs/pdf/A3030.PDF>) and Extension Publication A3340 *Corn Fertilization* (<http://www1.uwex.edu/ces/pubs/pdf/A3340.PDF>).

Subsoil Fertility Group	Phosphorus (P) Soil Test (ppm) Bray-P	
	High	Excessively High
A: High P	16-25	>25
B: Medium P	21-30	>30
C: Low P	21-30	>30
D: Medium P	19-28	>28
E: Variable P	33-42	>42
O: Variable P	33-42	>42
X: Low P	6-25	>25

## Schedule 2: Approved Nitrogen BMP Standards

An approved nitrogen BMP is designed to provide sufficient nitrogen taking into account all possible sources of nitrogen, including nitrogen from commercial fertilizers, preceding crops, manure, starter fertilizers and other incidental sources. An approved nitrogen BMP will be developed based on university or extension recommendations for nitrogen fertilization of corn from the state where the insured acreage is located.

The basic standards for the approved nitrogen BMP are given below. For additional information about the nitrogen fertilization recommendations for each state, such as crediting nitrogen from previous crops or manure, refer to the standard documents that are also listed below.

In some states, an expected yield value is needed to determine the approved nitrogen BMP. For the purpose of this endorsement, expected yield will equal approved yield multiplied by 1.1.

Only spring applications of nitrogen (after March 1) are considered an approved nitrogen BMP.

### Iowa

Application Factor: 1.2, 1.1, or 0.9 (depending on location)

Standard Document: Iowa State University Extension Publication PM 1811 *Managing Manure Nutrients for Crop Production* (<http://www.extension.iastate.edu/Publications/PM1811.pdf>)

### Pennsylvania

Application Factor: 1.0 - 1.1

Standard Document: Penn State University Extension Publications AGRS-26 *The Agronomy Guide* (<http://agguide.agronomy.psu.edu/>), Agronomy Facts 12 *Nitrogen Fertilization of Corn* (<http://www.agronomy.psu.edu/Extension/Facts/agfact12.pdf>) and the Penn State Agricultural Analytical Services Laboratory Soil Test Recommendations for Agronomic Crops ([http://www.aasl.psu.edu/Agro\\_Recs\\_page.htm](http://www.aasl.psu.edu/Agro_Recs_page.htm)).

### Wisconsin

Standard Document: University of Wisconsin Extension Publication A2809 *Soil Test Recommendations for Field, Vegetable and Fruit Crops* (<http://www1.uwex.edu/ces/pubs/pdf/A2809.PDF>)

The following table contains the nitrogen recommendations from the Wisconsin standard document:

Soil Organic Matter %	Other Soils			
	Sands/Loamy Sands <sup>a</sup>		Medium/low yield potential <sup>b</sup> (code 3 or 4)	Very high/high yield potential <sup>c</sup> (code 1 or 2)
	Irrigated	Non-irrigated	----- (lb N/a) -----	
<2	200	120	150	180
2-9.9	160	110	120	160
10-20	120	100	90	120
>20	80	80	80	80

<sup>a</sup> Subsoil group E or texture code 1  
<sup>b</sup> Default recommendations for northern Wisconsin soils  
<sup>c</sup> Yield potential 1 includes all irrigated non-sandy soils. Default recommendation for southern Wisconsin soils.

Standard Document: University of Minnesota Extension Publication FO-3790-C *Fertilizing Corn in Minnesota*  
<http://www.extension.umn.edu/distribution/cropsystems/DC3790.html>

The following table contains the nitrogen recommendations from the Minnesota standard document:

**Table 1. Nitrogen recommendations for corn production for situations where the soil nitrate test is not used.**

Crop Grown Last Year	Organic * Matter Level	Expected Yield (bu./acre)					
		<100	100-124	125-149	150-174	175-199	200+
		----- N to Apply (lb./acre) -----					
alfalfa (4 or more plants/ft <sup>2</sup> )	low	0	0	0	30	50	70
	medium and high	0	0	0	0	30	50
alfalfa (2-3 plants/ft <sup>2</sup> )	low	0	30	60	90	110	130
	medium and high	0	0	30	60	80	100
soybeans, small grains**, alfalfa (1 or less plants/ft <sup>2</sup> )	low	60	90	120	150	170	190
	medium and high	30	60	90	120	140	160
edible beans, field peas	low	70	100	130	160	180	200
	medium and high	50	80	110	140	160	180
Group 1 crops	low	25	55	85	155	135	155
	medium and high	0	25	55	85	105	125
Group 2 crops	low	100	130	160	190	210	230
	medium and high	70	100	130	160	180	200
<p>* <b>low</b> = less than 3.0%; <b>medium and high</b> = 3.0% or more. The well-drained soils of southeastern Minnesota receive the N recommendations listed for soils with a medium and high organic matter level. All irrigated soils are included in the low organic matter category.</p> <p>** Use these recommendations if any small grain stubble in southeastern Minnesota counties was tilled after harvest; if there was no tillage, use recommendations for crops in Group 1. Use recommendations for crops in Group 2 if corn follows small grain in the remainder of the state.</p>							
<b>Crops in Group 1</b>		<b>Crops in Group 2</b>					
red clover alsike clover birdsfoot trefoil grass/legume hay grass legume fallow		barley buckwheat canola corn grass hay	sunflowers vegetables grass pasture sweet corn wheat	sugarbeets oats potatoes rye sorghum-sudan			