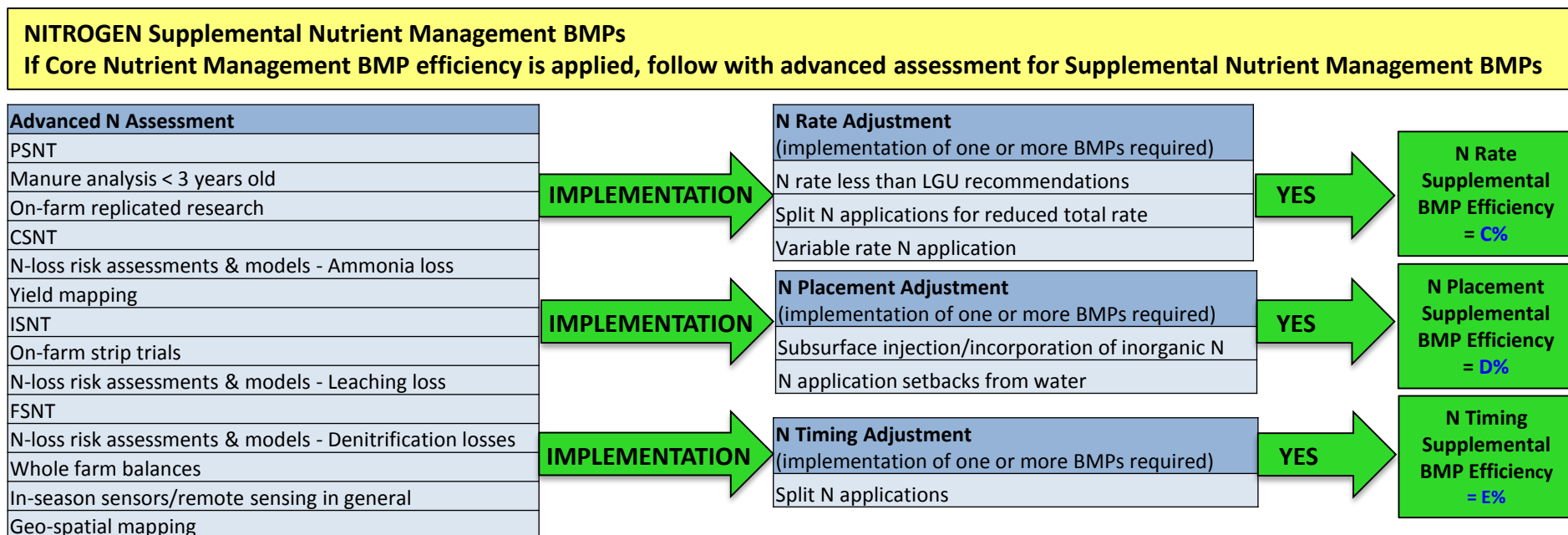
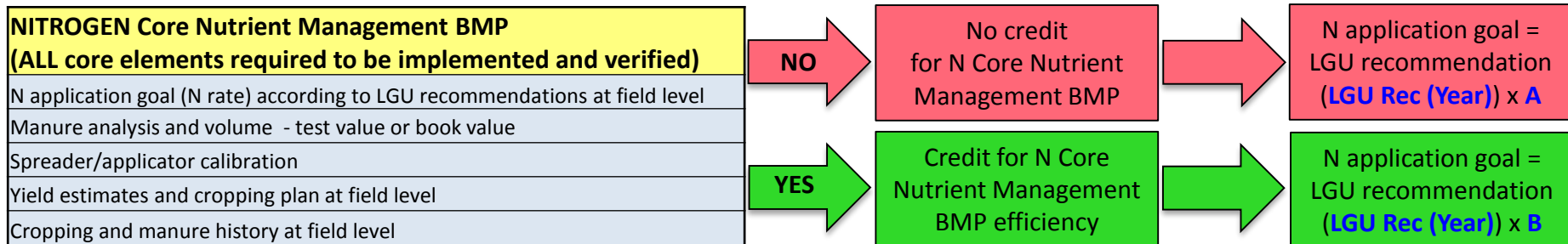


Phase 6 Nutrient Management Expert Panel

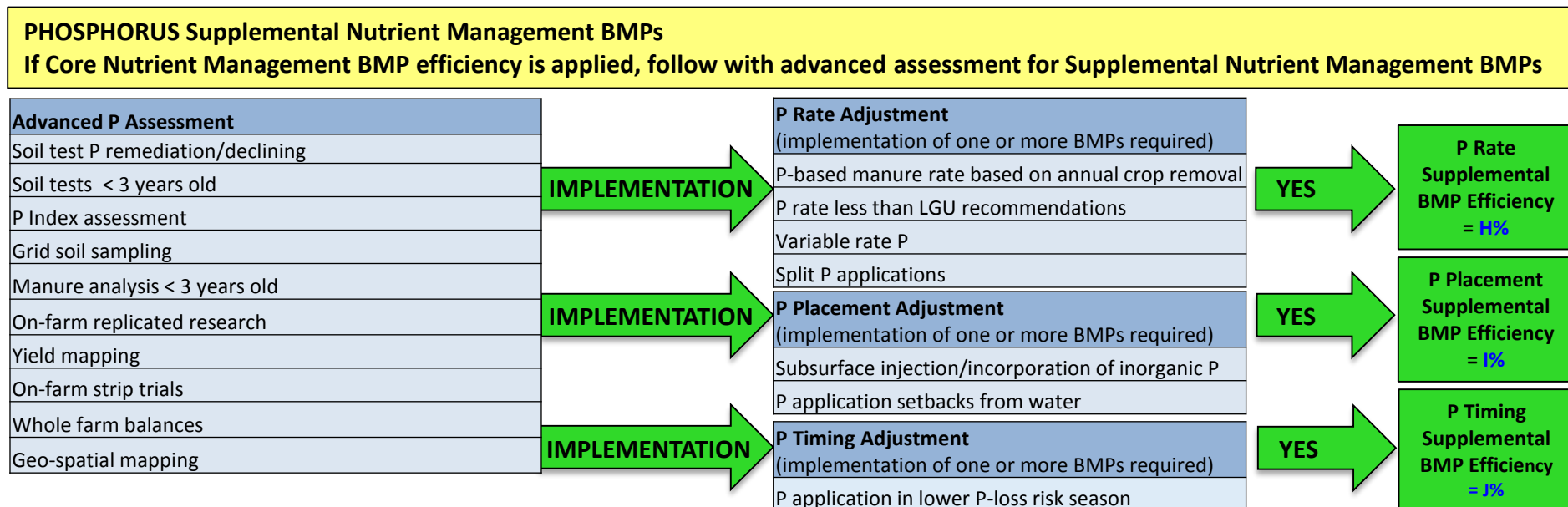
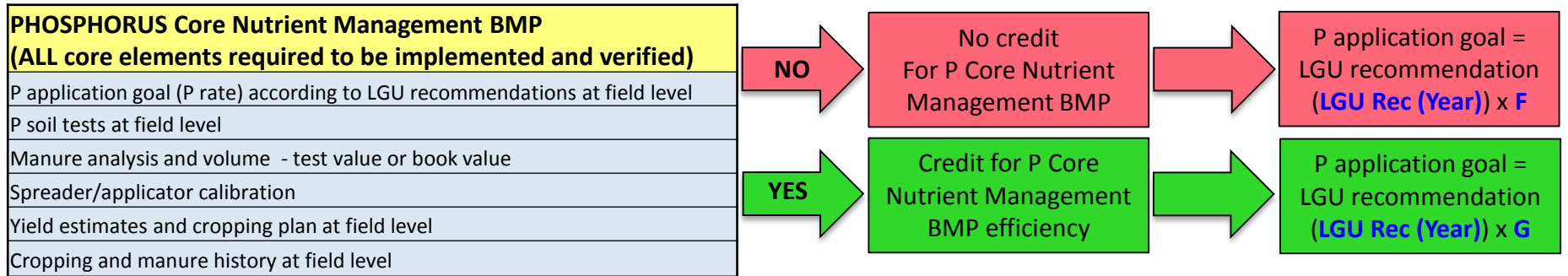
Guiding Principles

1. Nitrogen and phosphorus assessments are handled similarly but separately.
2. Historical base-line conditions (i.e. 1985) are used as a uniform reference point for pre-BMP, non-nutrient management conditions at the field scale.
3. A Core Nutrient Management BMP efficiency factor is based on state LGU recommendations and represents a landuse-specific nitrogen and phosphorus application rate in the models.
4. Supplemental Nutrient Management BMP efficiencies for rate, timing and placement of nitrogen and phosphorus are additive to the Core Nutrient Management BMP efficiencies for nitrogen and phosphorus, but can not be applied without Core BMPs.
5. Supplemental Nutrient Management BMP efficiency factors are applied as a reduction in nutrient loss between the edge of field and the stream.
6. All efficiency values shown in **bright blue** on the follow diagrams for nitrogen and phosphorus will be numeric variables that will be defined pursuant to future deliberations of the Nutrient Management Expert Panel.
7. The sequence and logic of spreading available nutrients across a county was determined separately from establishing efficiency factors for nutrient management BMPs.

Nitrogen Nutrient Management BMP Efficiency Factors



Phosphorus Nutrient Management BMP Efficiency Factors



Determination of Total Nitrogen Application, aka “The N Spread”

Step #1: Total NITROGEN Application Goal by Land Use per County

Non-NM N goal x Non-NM acres = Non-NM total N application (pounds)

NM N goal x NM acres = NM total N application (pounds)

SUM

Total N Application Goal (pounds) by Land Use per County

Step #2: Fertilizer NITROGEN Application Goal by Land Use per County

Total N Application Goal (pounds) – Manure PAN (pounds) = Fertilizer N application goal (pounds)

Note: At this point, Fertilizer N Application Goal is limitless.

Step #3: Fertilizer NITROGEN Application Goal per County

Sum of all Fertilizer N Application Goals for all land uses within a county

Step #4: Fertilizer NITROGEN Application Goal Supply Limit per County

A = Fertilizer N application goal

B = Redistributed AAPFCO Fertilizer N Sales

If **A** < **B**, then **A** = Fertilizer N application goal limits fertilizer N supply

If **A** > **B**, then **B** = Redistributed AAPFCO Fertilizer N Sales limits fertilizer N supply

Determination of Total Phosphorus Application, aka “The P Spread”

Step #1: Total PHOSPHORUS Application Goal by Land Use per County

Non-NM P goal x Non-NM acres = Non-NM total P application (pounds)

NM P goal x NM acres = NM total P application (pounds)

SUM

Total P Application Goal (pounds) by Land Use per County

Step #2: Fertilizer PHOSPHORUS Application Goal by Land Use per County

Total P Application Goal (pounds) – Manure P (pounds) = Fertilizer P application goal (pounds)

Note: At this point, Fertilizer P Application Goal is limitless.

Step #3: Fertilizer PHOSPHORUS Application Goal per County

Sum of all Fertilizer P Application Goals for all land uses within a county

Step #4: Fertilizer PHOSPHORUS Application Goal Supply Limit per County

A = Fertilizer P application goal

B = Redistributed AAPFCO Fertilizer P Sales

If **A** < **B**, then **A** = Fertilizer P application goal limits fertilizer P supply

If **A** > **B**, then **B** = Redistributed AAPFCO Fertilizer P Sales limits fertilizer P supply