Agricultural Workgroup

BMP Verification Process
Progress to Date

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06/19/12

BMP Verification Process

- Based on *draft* "Verification Principles" under development by the WQGIT and the BMP Verification Steering Committee.

- An Agriculture-centric focus
  - Annual BMPs
  - Structural BMPs
  - Cost-shared practices
    - Federal
    - State
    - NGO
  - Non-cost shared practices
  - Functional equivalent practices

Existing Efforts

- AgWG surveyed existing state agency procedures for verification of BMP implementation
  - Cost shared
  - Non-cost shared
- AgWG surveyed practices of non-state agency efforts to account for BMP implementation
  - Pilot programs
  - Cost shared
  - Non-cost shared

Utilize Existing Programs & Data

- Federal and State verification practices are already in place for most cost-shared BMPs
  - Do not duplicate efforts
  - Professional evaluation done once is good enough
- All verification data generated must be utilized by the CBP model
  - Relative accuracy or confidence in verification process will vary by BMP
  - Relative credit will necessarily vary by verification process and accounting confidence

AgWG BMP Verification Concept

- Introduced to AgWG at May WG meeting
  - Distributed for rumination
  - Comments and suggestions collected
- Rigorous evaluation of compiled comments and suggestions at June AgWG meeting
  - Adoption of concept framework
  - Agreement on structure
- Buy-in from all agency and non-agency partners
- Refinements in process

AgWG BMP Verification Concept

- Protocol Concept Features
  - Provides multiple options for data collection and verification
  - Allows different approaches for annual vs. structural BMP data collection and verification
  - Incorporates relative cost per unit of data collected for resource comparison
  - Each accepted method allows for recognition of all reported BMP data by P5.3.2
  - Relative data confidence level influences the effectiveness value of BMPs as applied in P5.3.2

AgWG BMP Verification Concept

- Protocol Concept Features
  - Defensible relative confidence and credit values will be developed and based on available scientific and statistical data
  - Consistent rigor is applied on all collected and verified BMP data regardless of funding source
  - Consistency across all agencies & partners for collecting and reporting BMP data with commensurate credit values
  - Enables partners to select and apply verification methods based upon available resources and known relative credit value for verification method

Draft Agricultural Verification Protocol Concept
Chesapeake Bay Program Agriculture Workgroup (AgWG)

6/15/2012

Ag Protocol Category	BMP Inventory Assessment Method	Cost-Share Information				BMP Functionality Information					Verification Methodology	Verification Issues	Relative Cost	Relative Data Confidence	Relative Data Credit
		Federal Cost Share	State Cost Share	NGO Cost Share	Private Funded	Meets Specs	Functional Equivalent	Partially Effective	Not Effective	Installation Date			Low: < $1/acre Medium:$1 to $3/acre High: > $3/acre	Annual BMP / Structural BMP (5=maximum, 1=minimum)	Annual BMP / Structural BMP (% of Approved BMP Effectiveness Value)
On-farm Assessment	Farm inventory by trained federal, state, and/or county agency personnel.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Through on-site visit by trained personnel, collecting data, check databases, check on-farm records	Accredited data source through training/certification	High	5 / 5	
On-farm Assessment	Farm inventory by trained independent third-party personnel.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Through on-site visit by trained personnel, collecting data, check databases, check on-farm records	Accredited data source through training/certification	High	5 / 5	
On-farm Assessment	Farm inventory by trained agricultural industry personnel.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Through on-site visit by trained personnel, collecting data, check databases, check on-farm records	Accredited data source through training/certification	High	4 / 4	

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Farmer Self-Assessment	Farmer completes self-certified inventory survey with 100% check by trained federal, state and/or county personnel.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	On-site visit by trained personnel, collecting data, check databases, check on-farm records	Confirmation checks of self reported practices	Medium/High	4 / 5	
Farmer Self-Assessment	Farmer completes self-certified inventory survey with 10% spot check by trained federal, state and/or county agency personnel.	Yes	Yes	Maybe	Maybe	Yes	Maybe	Maybe	Maybe	Maybe	Statistical sample on-site visit by trained personnel, collecting data, check databases, check on-farm records	Statistical sample confirmation checks of self reported practices	Medium	3 / 3	
Farmer Self-Assessment	Farmer completes in-office self-certified inventory with trained federal, state and/or county agency personnel.	Yes	Yes	Maybe	Maybe	Yes	Maybe	Maybe	No	Maybe	Farmer certified during the visit at USDA or governmental office	Farmer Self certification with Professional Assistance	Low/Medium	2 / 4	
Farmer Self-Assessment	Farmer completes self-certified inventory survey.	Maybe	Maybe	Maybe	Maybe	Maybe	Maybe	Maybe	No	Maybe	By Farmer self certification when submitted	Wide variance in knowledge of farmers	Low	2 / 2	

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Records Review	Review of existing in-office agency records by trained federal, state and/or county agency personnel.	Yes	Yes	Maybe	Maybe	Yes	No	No	No	Yes	Trained personnel verify through knowledge of the farm or through calls made to the farmer	Misses many non-C/S practices	Low/Medium	4 / 4	
Records Review	Review of existing on-farm records by trained federal, state and/or county agency personnel.	Yes	Yes	Maybe	Maybe	Yes	No	No	No	Yes	Trained personnel verify through knowledge of the farm or through calls made to the farmer	Misses many non-C/S practices	Low/Medium	3 / 3	
Records Review	Review of existing on-farm records by trained independent third-party personnel.	Maybe	Maybe	Maybe	Maybe	Yes	No	No	No	Yes	Trained personnel verify through knowledge of the farm or through calls made to the farmer	Misses many non-C/S practices	Low/Medium	3 / 3	

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Statistical Sampling	Statistical transect survey completed by trained personnel on a County or Watershed scale.	Maybe	Maybe	Maybe	Maybe	Yes	Maybe	Maybe	Maybe	No	Verified by the trained personnel completing the transect survey on the ground	Can only determine existence and quality of practices not source of funding	Low / Medium / High [Determined by design and rigor of sampling methodology]	1 to 4 / 1 to 4 [Determined by design and rigor of sampling methodology]	
Statistical Sampling	CEAP/NRI survey conducted in-person at field-level with NASS trained personnel.	Maybe	Maybe	Maybe	Maybe	No	No	No	No	No	NASS certification procedures	Survey conducted at various watershed HUC scales using specific field points	Low / Medium / High [Determined by design and rigor of sampling methodology]	1 to 4 / 1 to 4 [Determined by design and rigor of sampling methodology]	
Statistical Sampling	NASS survey conducted via survey with NASS trained personnel.	No	No	No	No	No	No	No	No	No	NASS certification procedures	Survey using self-reported information with statistical checks	Low / Medium / High [Determined by design and rigor of sampling methodology]	1 to 4 / 1 to 4 [Determined by design and rigor of sampling methodology]	

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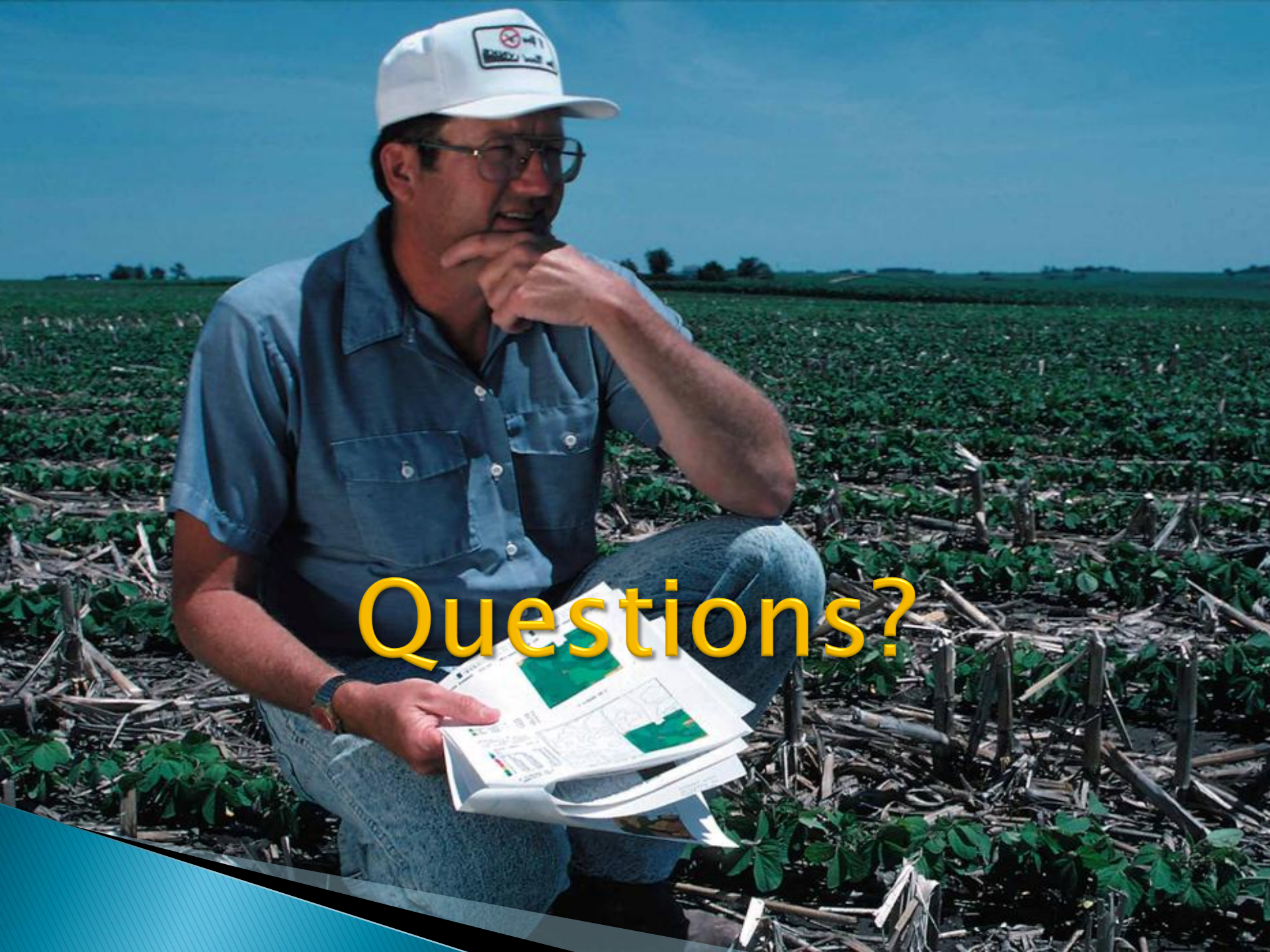
Remote Sensing	Remote Sensing, aerial photography	No	No	No	No	No	No	No	No	No	Verification by visit to each site or a statistical sample to collect and certify data	Variation in scale and quality of remote imagery effects data quality	Low / Medium / High [Determined by design and rigor of methodology]	1 to 4 / 1 to 4 [Determined by design and rigor of sampling methodology]	


Questions?