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| **Table 1: Commonly Adopted Sustainable Agriculture Practices among Kentucky Farmers** |
| ***Alley Cropping:*** Planting trees or shrubs with agronomic, horticultural or forage crops cultivated in the alleys between woody plants (Kornegay *et al.*, 2010).  ***Animal for Land Reclamation:*** Small mammals such as mouse help to loosen the mined surface which favors quick succession (Larkin *et al.,* 2008).  ***Biological Pest Control:*** Pest are suppressed by their natural enemies (Filho *et al.*, 1999).  ***Composting:*** Waste recycling technique converting waste into nutrient rich humus with high soil organic matter using microbes (Filho et al., 1999).  **Conservation Tillage:** Tillage and cultivation practice that incorporate crop residue into the field (Hobbs, Sayre, & Gupta, 2008).  **Controlled Grazing:** The grazing of animals is controlled by rotating and striping field letting field to recover before successive round of grazing (White & Wolf, 2009).  **Cover Crops and Green Manuring**: Use of legumes such as clover, vetch and non-legumes such as rye, wheat to improve soil fertility and reduce erosion and incorporate into soil as green manure (Kornegay et al., 2010).  **Crop and Livestock Production System Integration:** An integrated system where crop and livestock enterprise are combined and benefitted from each other (Kornegay et al., 2010).  **Crop Rotation:** System of rotating legumes and non-legumes crops in same field to maintain soil fertility (Kornegay et al., 2010).  **Cultural Pest Control:** Managing the crop, weed, disease and pest complex by manipulating cultural practices (Kornegay et al., 2010).  **Fallow Management:** The use of fallow period to conserve rainfall as stored soil water and reduce soil erosion (Kornegay et al., 2010).  **Farm Machinery Adjustment**: Adjustment in planting, spraying and harvesting farm machinery operation, calibration, repair, and their safety (Kornegay et al., 2010).  **Forest Stewardship:** Forest conservation and development of forest in own farm land.  **Improved Water Management:** improve irrigation facility to reduce irrigation water losses (Kornegay et al., 2010).  **Increase Biodiversity:** Diversify flora and fauna in farm (Kornegay et al., 2010).  **Integrated Pest Management:** A pest management strategy using biological, chemical and physical, cultural production cost and protect the environment (Kornegay et al., 2010).  **Land Reforming:** Forming terrace, reducing slope, and other slope stabilizing technologies to reduce surface run off of water and top soil.  **Local or Native Crops:** Locally available crops or local varieties (Kornegay et al., 2010).  **Mulching:** A shallow layer of grass or crop residues at the soil/air interface to improve soil quality and moisture retention (Filho *et al.*, 1999).  ***Multi-species Grazing:*** Grazing more than one species of livestock such as chicken, duck, goat and horse in same land (Kornegay *et al.*, 2010).  ***Poly-culture Farming:*** Different and less competitive crops grown together to optimize biomass yield and improve environmental quality (Kornegay *et al.*, 2010).  ***Precision Agriculture:*** Observation, measurement and response based farm management strategy to address inter and intra-field variability in crops and increase farm efficiency, productivity and economic returns (Kornegay *et al.*, 2010).  ***Reduced Chemical Fertilizer Use:*** Reduced in the use of chemical fertilizers (Kornegay *et al.*, 2010).  ***Reduced Chemical Pesticide Use:*** Reduce in the use of chemical pesticides (Kornegay *et al.*, 2010).  ***Reforestation:*** Reestablishing forest in barren land or farm land.  **Ridge Tillage:** Scalping and planting on ridges built during cultivation (Kornegay et al., 2010).  **Sprayer Calibration (and Application Accuracy):** Calibrate sprayers to use optimum amount of chemicals as well as other spraying inputs in farm.  **Varietal Mixture of Single Crop:** Mixing different variety of same crops. Also known as Cultivar Mixtures (Kornegay et al., 2010).  **Windbreaks and Shelterbelts:** Create wind barriers and provide shelter to crops by planting tall, dense and strong trees along the edge of farmland (Kornegay et al., 2010). |

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| **Reference** | **SAPs Types** | **Study Area** | **Findings relevant to Paper** |
| Awan et al. (2015) | SAPs/ BMPs in Cotton. | Punjab, India. | Level of Adoption was higher among licensed farmers with the better understanding of sustainable cotton program. Education, land holding size, have positive impact whereas age and farming experiences have negative. |
| Barungi et al. (2012) | Soil Erosion Control Technologies | Eastern Uganda | Increase in access to extension service, amount of land owned, and diversity of farm tools increase technology adoption. |
| \*Baumgart-Getz (2012) | BMPs | USA | Access to and quality of information, financial capacity, connection with extension agents and farmer’s network have largest impact on adoption. |
| \*Carlisle (2016) | Soil health practices | USA | Combining education, research, policy, measure to overcome equipment barriers, and addressing farm and food system context increase the adoption of soil health practices. |
| Da Costa (2012) | Watershed Conservation | Kentucky, USA | Counties with more farms and larger farms are more likely to participate in conservation program. The adoption depends upon land characteristics of individual plots. |
| Filho et al. (1999) | Sustainable Agriculture Technologies | Espirito Santo, Brazil | The adoption increase with the increase in the awareness of negative impacts of chemicals, family labor availability, better soil condition but decrease with the increase in farm size. |
| Gillespie et al. (2007) | 16 BMPs in Cattle Industry | Louisiana, USA | Farmers does not adopt technologies because of unfamiliarity, non-applicability, high cost, preference towards technologies. Education and extension activities are important to improve adoption of BMPs. |
| Greiner et al. (2009) | BMPs reducing diffuse source pollution from agriculture land | Queensland, Australia | Understanding of farmer’s motivation, risks, and attitudes is required to improve environmental quality in agriculture sector. Farmers’ positive attitude towards environment conservation, healthy lifestyle improves adoption of BMPs. Also, external initiatives motivates economically and financially motivated farmers to adopt sustainable management technologies. |
| Hall et al. (2009) | Sustainable Floriculture Practices | USA | The concerns about the implementation (eg. easiness), and risk associated with the implement are two major important factor affecting adoption of SAPs beside location and farm size. |
| \*Kabii and Horwitz (2006) | Conservation Easement Programs |  | Landlords’ demographics, land tenure nature, knowledge and awareness about the program, financial circumstances, and participation risk perception, benefit of programs, incentives and compensation are important factors that affect the participation of conservation programs. |
| \*Knowler and Bradshaw (2007) | Conservation Agriculture |  | The variable explaining the adoption of conservation practices is also localized alike conservation practices themselves. So, policy development and planning, attempts to improve adoption should be localized to address location specific needs and demands. |
| Lashgarara (2011) | Wheat related SAPs | Lorestan, Iran | Education, social engagement, market access, use of media, extension classes, knowledge and attitudes (positive) about SAPs improves adoption. |
| Mullendore et al. (2015) | Conservation Behavior | Midwest USA | The sense of place or place attachment and the place identity have significant effect on the specific conservation behavior but not in the overall. |
| \*Prokopy et al. (2008) | Best Management Practices | United States | Education level, income, farm size, access to information, positive environmental attitudes, environmental awareness, and utilization of networking has more often positive relation with the adoption of best management practices. |
| Singer et al. (2007) | Cover Crop | US Corn Belt: IL, IN, IA, MN | Crop diversification plays an important role in the adoption of cover crops and availability of cost share program would enhance use of cover crop among corn belt farmers. |
| Wilson et al. (2014) | Nutrient Management Practice | Ohio, USA | The attitude towards the adoption of practice to improve nutrient management is driven by farmer’s attitudes, perceived risks and response towards the negative impact of nutrient losses from farm in the environment. Younger farmers are already engaged in and have more positive attitudes towards management practices. |
| Yang and Sharp (2017) | BMPs for Water Protection | Waikato, New Zealand | Farmers closer to each other has similar choice of BMPs. Availability of information is the most important factor followed by financial problems for the adoption of BMPs. Spatial effects is also an important factor in decision making towards the adoption of BMPs. |
| Zhong and Hu (2014) | BMPs via Water Quality Trading Program | Kentucky, USA | Farmers who participate in conservation program are more likely to adopt BMPs. Attitude of farmers towards BMPs and conservation practices are more important when adopting BMPs among farmers. |