Best Management Practices: Opportunities and Strategies

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Abstract:

There are a variety of government sponsored funding opportunities available for agricultural producers to implement best management practices (BMPs) in their operations. Given the prevalence of non-point source pollution in the Seneca Lake watershed, it would be beneficial for outreach efforts to target those farming operations who would show the greatest net benefit from BMP implementation. By analyzing a wide variety of econometric studies that have been conducted in the recent past, farm size, age of operator, extension training, information, percent of income from farming, and networking were all found to have significant effects on the likelihood for a farmer to adopt BMPs. Using this information and coupling it with individual farm-level data it would be possible to target the farms who are most likely to adopt BMP's with outreach efforts and extension training. This would enable the greatest return on limited resources and consequent reduction in nutrient loading. Several specific programs were analyzed along with county data and implications for this area.

Factors Influencing BMP Adoption

Farm Size (+)
- Most influential factor (spreads out costs, higher likelihood of dependence on income)
- Larger farms would also use more fertilizer, increasing potential for remediation

Age of Principle Operator (-)
- As the age of a farmer increases, likelihood of BMP adoption decreases
- Likely due to different planning horizons, end goals, and payback of BMPs

Extension Training (+)
- Short training exercises found to be much more influential than formal degrees
- Notable given viability of implementation by local groups/governments

Information (+)
- Related to extension training – availability of relevant, quality information shown to be a positive influencer

Networking (+)
- Could take several forms, such as agency, university, local, and business groups
- Effective networking can help spread information to less likely adopters as well

Source: Baumgart-Getz, Prokopy, and Floress

Percentage of Farms With Over $100,000 in Sales
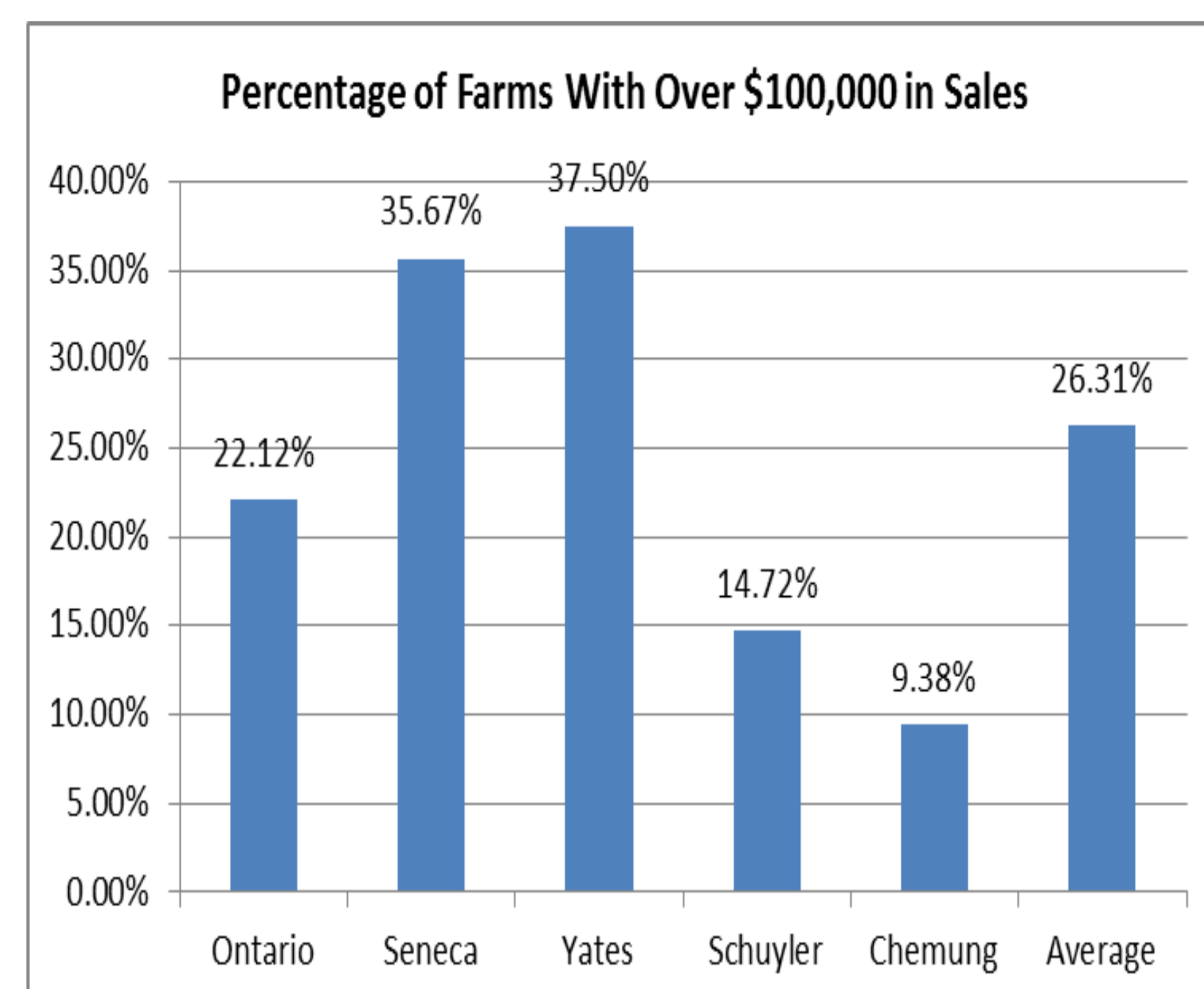
High sales farms indicate a potential for effective reduction of nutrient loading.

Percentage of Acres Used for Corn
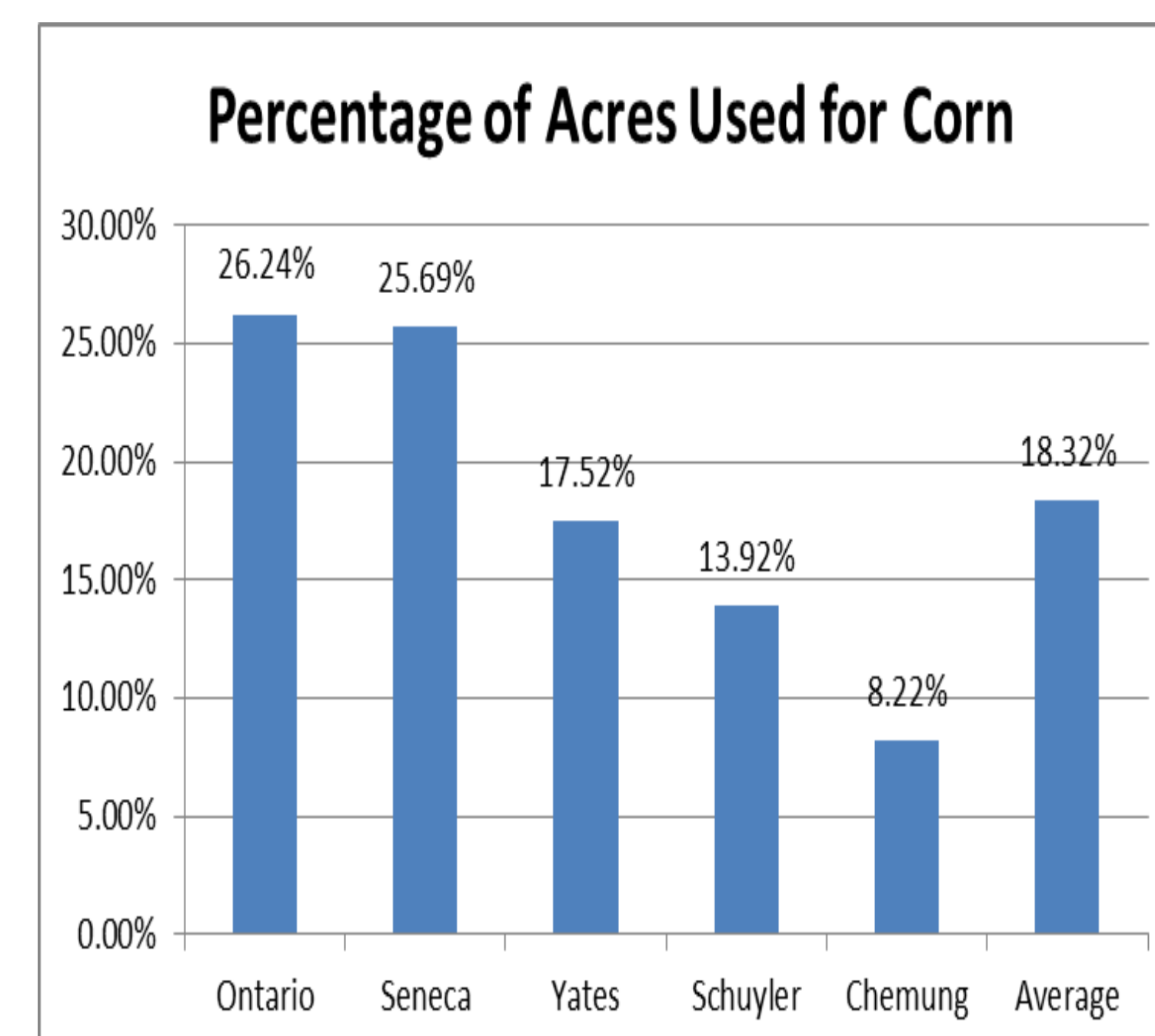
Corn Farms have a high potential for effective nutrient loading reduction through BMP implementation

Useful Federal Programs

Agricultural Management Assistance (AMA)
- Limited to 16 states and includes New York
- 2011 – over $600,000 given to NY farms
- Addresses issues of water management, water quality, and erosion control

Conservation Reserve Program (CRP)
- Retires farmland with cover crops (grass, trees, etc.)
- $2 billion in annual federal spending
- 30 million acres enrolled

Environmental Quality Incentives Program (EQIP)
- Provides financial and technical assistance
- Covers both management and structural practices
- Reimburses up to 75% of cost

Source: NCRS, FSA

Examples of BMPs

County Summary Data (source: USDA)

County	Ontario	Seneca	Yates	Schuyler	Chemung	Average	Total
Number of Farms	859	513	864	394	373	601	3,003
Land in Farms (acres)	198,937	127,972	126,118	66,368	65,124	116,904	584,519
Average Size of Farm	232	249	146	168	175	194	
Crop Sales ($1000)	49,498	33,048	31,812	12,563	3,143	26,013	130,064
Corn for Grain and Silage (Acres)	52,205	32,872	22,091	9,240	5,355	24,353	121,763
Farms making over $100,000	190	183	324	58	35	158	790
Average Production Expenses ($)	136,045	134,644	70,682	59,776	43,032	88,836	
Average Net Income ($)	54,457	38,871	42,650	29,771	6,567	34,463	
Average Age of Principle Operator	54.2	53.1	49.9	56.9	56.7	54.2	