HAY IN CROP ROTATIONS

Large scale continuous row crop production has a detrimental impact on soil quality that has far reaching and long term ecological and economic consequences. The homogenized conditions of continuous row-crop production also encourage the evolution of weed and pest pressures; to counter this it is essential to maintain a diverse and constantly changing genetic landscape.

Crop rotation incorporating oats, alfalfa, etc. was once the industry standard and remains the best alternative to continuous row crop production. The diversity imbued by crop rotation reduces the weed and pest threats and the need for temporary solutions, such as pesticide and fertilizer use. Gene and Dorothy Horsman are landowners along the Lost Creek Hiking Trail that use a corn/soybean/hay rotation. The inclusion of hay in the rotation, taking advantage of hay's ability to fix nitrogen and filter runoff from row crops, reduces soil erosion, improves soil quality, and increases long term yield.

Crop rotation is important with strip cropping systems for both crop production and erosion control. Information on strip cropping is available here.

MORE INFO:

CONSERVATION CROP ROTATION FUNDING GUIDE
http://www.mda.state.mn.us/protecting/conservation/practices/croprotation.aspx

http://www.thisland.illinois.edu/60ways/60ways_7.html

http://www.ag.ndsu.edu/pubs/plantsci/crops/eb48-1.htm

Table 6. Expected soil losses in tons per acre per year from cropping systems on moderately eroded slopes, Wisconsin Agri. Experiment. Station., Bulletin 452, 1941.

	Percent Slope							
Cropping System	**3**	**6**	**9**	**12**	**15**	**16**	**18**	**24**
	- - - - - - - **Tons soil lost per acre** - - - - - - -							
Corn annually	5	12	22	44	76	89	117	242
Corn, barley (sweetclover)*	2	4	8	16	28	33	44	90
Corn, barley, hay	1	3	6	11	19	22	29	60
Corn, corn, barley, 3 yrs. hay	1	3	5	10	17	20	26	54
Corn, barley, 2 yrs. hay	1	2	3	6	11	13	17	35
Corn, barley, 3 yrs. hay	0.5	1	2	4	7	8	10	22
Corn, barley, 4 yrs. hay	0.5	1	2	3	6	7	9	19
Corn, barley, 6 yrs. hay	0.5	1	1	2	3	5	7	14
Corn, barley, 10 yrs. hay	0.2	0.5	1	1	2	3	4	8