



### Logic Model (based on NIFA logic model structure)

#### Situation:

- Resources are needed to build and strengthen connections among researchers, educators, and farmers working on the different continuous living cover strategies; both within and across strategies.
- No single access point exists for resources on grazing and integration of livestock into landscapes and cropping systems
- Limited public funds and few professional development opportunities exist for grazing education/educators

#### Assumptions:

- Livestock are a key way to integrate continuous living cover practices on agricultural landscapes.
- Livestock and livestock-derived products provide a baseline market for crops produced in biomass, agroforestry, and perennial grain systems; in addition to supporting acreage in perennial forages and cover crops.
- Stronger professional connections among experts in livestock and grazing, water quality, soil health, and cropping systems would benefit the GLBW goal of increasing continuous living cover in agricultural landscapes.
- An ongoing and increasing public interest in perennial cropping solutions to water quality and soil health issues will drive future demand for grazing educators' services.
- Grazing educators want opportunities for professional development, networking, and sharing of resources with each other.
- People working within the various CLC strategies want opportunities to build cross-strategy collaborations.

#### External factors:

- Consumer interest in grass-fed and pasture-based livestock production is driving demand for well-managed pasture production systems.
- Landowner interest in conservation, including among non-operating landowners, is resulting in interest in pasture and livestock systems on rented/leased land.
- Grazing management is a viable entry point for beginning farmers.
- Climate change is pushing livestock producers toward new practices that incorporate other CLC strategies. Examples: silvopasture and shade trees for livestock comfort, perennial warm-season grasses for drought resilience.
- Concerns about water quality and invasive species control among city residents and city governments are pushing crop farmers and land managers toward new practices that incorporate CLC strategies and that could involve livestock. Examples: riparian buffer zones in



perennial forages that can be grazed or hayed, use of graze-able cover crops along with row crop production, custom grazing for control of invasive plants.

Inputs	Activities	Outputs
<p><b>Organizational Structure:</b> GLBW Partnership, MPFWG and the organizations represented, collaboration with Pasture Project</p> <p><b>Human Resources:</b> MPFWG co-chairs, MPFWG members, staff support from GLBW</p> <p><b>Knowledge:</b> Members’ extensive knowledge base, connections with other educators with knowledge and experience on grazing-related topics, connections with institutions and organizations</p> <p><b>Practice:</b> Practical experience of educators in the group with delivering grazing education</p> <p><b>Training and Outreach Resources:</b> Access to the infrastructure and outreach tools of the GLBW and MPFWG networks and member organizations; social media; website</p> <p><b>Funding:</b> Base support from GLBW; potential for expanded funding through GLBW’s major donors; potential for other grant funding</p>	<p><b>Baseline:</b></p> <ul style="list-style-type: none"> <li>- Hold conference calls &amp; in-person meetings for maintaining group cohesion and planning of activities</li> <li>- Implement ongoing communication among MPFWG members</li> <li>- Implement outreach communication to multiple grazing and livestock production audiences</li> <li>- Develop a formal plan for the Midwest Perennial Forage Working Group</li> </ul> <p><b>Development:</b></p> <ul style="list-style-type: none"> <li>- Create slide library using materials from 2015 Grazing Educator Webinar series</li> <li>- Expand website with more resources</li> <li>- Implement mini-grant program to serve 5 states: IA, IL, MN, MO, WI</li> </ul>	<ul style="list-style-type: none"> <li>- Two annual meetings and six quarterly conference calls held with average participation of 7 people/meeting</li> <li>- Two GLBW Conference sessions and proceedings pages added to website</li> <li>- Online slide library featuring minimum of 72 slides gleaned from 6 Grazing Educator webinars and minimum of 50 additional slides gleaned from workshop &amp; conference presentations, available for download &amp; use by any grazing educator</li> <li>- Expanded website resource section featuring links to resources from minimum of 6 additional organizations</li> <li>- Mini-grants awarded to minimum of 5 projects in each of 2016 &amp; 2017, in 5-state region: IA, IL, MN, MO, WI</li> <li>- 300 farmers &amp; educators reached</li> </ul>



	<ul style="list-style-type: none"> <li>- Plan &amp; host sessions at 2016 and 2017 GLBW Conferences</li> <li>- Update Contract Grazing Fact Sheet series</li> <li>- Develop Herbicides &amp; Grazing Cover Crops Fact Sheet (collaborative project with PFI)</li> <li>- Print &amp; distribute copies of Continuous Living Cover manual at sponsored field days &amp; workshops</li> </ul>	<p>through sponsored field days</p> <ul style="list-style-type: none"> <li>- 300 Continuous Living Cover manuals distributed to farmers &amp; educators</li> <li>- 300 sets of Contract Grazing fact sheets distributed to farmers &amp; educators</li> <li>- Website houses documents and presentations generated by 10 mini-grant projects sponsored over two years</li> <li>- Herbicides &amp; Grazing Cover Crops fact sheet distributed to minimum of 500 farmers, crop advisors &amp; educators</li> </ul>

OUTCOMES		
Knowledge	Actions	Conditions
<ul style="list-style-type: none"> <li>- MPFWG website is a comprehensive resource for information on grazing and integration of livestock into landscapes and cropping systems.</li> <li>- MPFWG provides resources that grazing educators can adapt and use in their own work.</li> </ul>	<ul style="list-style-type: none"> <li>- MPFWG website is regularly used by farmers, farm advisors and grazing educators as evidenced by increasing web traffic to the site (2015-2016 baseline avg. = 253 pageviews/month)</li> <li>- Workshops at a wide variety of venues throughout the 5-state region feature slides borrowed from the slide</li> </ul>	<p>Farmers, farm advisors, grazing educators, and land managers have the information and resources they need to successfully integrate livestock into landscapes and cropping systems.</p> <p>Integration of livestock is a normal and expected component of land management.</p>



<ul style="list-style-type: none"> <li>- MPFWG is a competent collaborator in development of fact sheets and informational tools that support grazing and livestock integration</li> <li>- MPFWG goals and key concepts are presented in minimum of 10 sponsored field days, workshops, and conferences in IA, IL, MN, MO, and WI</li> <li>- MPFWG members form a cohesive working group that can effectively provide information and collaborate within and outside of GLBW</li> </ul>	<p>library, thus introducing MPFWG goals &amp; concepts broadly across the region and in multiple contexts</p> <ul style="list-style-type: none"> <li>- MPFWG is invited to further collaborations with related organizations, providing both additional funding streams for MPFWG and opportunities to embed MPFWG goals &amp; concepts into the work of these organizations</li> <li>- MPFWG is invited to share information and collaborate with other GLBW Working Groups and the Watershed Initiative</li> <li>- MPFWG goals &amp; concepts are seen, heard and adopted by farmers, farm advisors and grazing educators in IA, IL, MN, MO and WI</li> </ul>	<p>Integration of livestock into landscapes and cropping systems supports expanded acreage of continuous living cover, which in turn improves soil health, water quality, and resilience to climate variability.</p>
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