

R013-B: Energy Beet Research, Phase II  
Submitted by Green Vision Group  
Principal Investigator: Lloyd Anderson  
Request for \$500,000; Total Project Costs \$1,000,000

**Technical Advisor Comments**

- 1 reviewer recommended fund, 2 recommended funding be considered.
- Applicant will provide a 50% match. 27% of the match is cash, and the remaining 23% is in-kind (GVG).
- 2 reviewers felt the project was achievable. 1 had concerns, stating "...lack of details for each objective made evaluation nearly impossible. The lack of progress report from the previous funding did not increase reviewer's confidence."
  - There is a progress report summary available on our website.
- 1 reviewer felt the methodology was appropriate. 2 reviewers felt most of the methodology was adequate while sections needed more detail.
- 1 reviewer felt that while the proposal claims there are several technical challenges and research questions that require significant investigation, those "challenges" are not apparent.
  - The applicant has listed 3 specific research questions that will be addressed in this study.
- 1 reviewer stated that the project was not..."revolutionary for the bioenergy industry. Some of the work is needed, however, the impact is low."
  - Applicant has responded that the project is innovative in a number of ways including: producing beets in new regions, changes in storage, and juice extraction front end technology.
- 2 reviewers felt the management plan was adequate, 1 reviewer felt more information on the division of labor was needed between GVG & HRE.
  - Applicant has stated that 75% of the project management will come from GVG. 25% will be provided by HRE. NDSU will assist informally.
- All 3 reviewers wanted the equipment budget to be broken out more.
  - The applicant has stated that it will be used for the following: hammer mill (\$10K), ribbon mixer (\$8,450), heater & spray fabrication (\$6K), chamber filter (\$30K).
  - It is not clear who will own the equipment, or what it will be used for after the project.
- 1 reviewer stated, "The research team, based on a literature review, appears to be leaders in the use of sugar beets as a source of bioethanol in the US, in ND in particular."
- 1 reviewer felt more funds should go to research and stated, "Research on storability of beet juice for year round use is extremely important for this special biomass."
  - The applicant considers planting & harvesting as part of the research.
- 1 reviewer felt that the "Committee might consider suggesting more involvement of NDSU, so that the literature will be done and more critical thinking can be used to design a more effective project."
  - The scientific tasks will be conducted by NDSU.

**Technical Advisor Recommendations**

Funding may be considered.

Because of their scientific nature, the front-end processing study, yield trials, and storage studies are easily justifiable. Project management, stakeholder communications, and federal crop insurance have more intangible results by nature. Because of this, more details should be provided. A more detailed budget has been provided that has the tasks broken down into separate line items. However, it would be nice if the major expenses were listed as well such as printed materials, travel, etc. There should also be more information provided in the methodology. We have been told who they want to communicate with; we have not been told how they will do it and how they will know they are successful. For example, building a website is not nearly as significant as the number of hits on the website.

The proposal has received great community support. A representative from Beta Seed has informed me that they have similar plots throughout the country. It would be a win for our state and the program if we could be the first.

Another interesting aspect is the policies currently in place to support the sugar industry. If these policies were to go away in the future, it would negatively impact our economy. This is one way to be proactive. Seeking alternative uses for beets now could minimize the damage later.

If the Council has concerns about the budget or results, they may want to consider funding only the scientific tasks first, especially the storage studies since the reviewers indicated this was a particular need.

**Suggested Contingencies If Funded**

- Appendix III of the proposal states, “...If accepted, RMA evaluates performance of the pilot program and usually reimburses firms for development expenses...” It is unclear what firm would be reimbursed. If it is GVG, a portion of any reimbursement should be returned to the REP.
- A detailed communications plan is provided to Commerce’s Marketing Team for review. They will offer any suggestions they might have.