

## IOWA EDIBLE BEAN PRODUCTION WITH DIRECT MARKETING TO JAPAN BY THE GREENE BEAN PROJECT

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### Abstract

In January 2001, a group of west-central Iowa farmers and supporters came together to research raising edible beans and other alternative crops. The experiment has grown into the Greene Bean Project, Alternative Crop Enterprises of Iowa, LLC whose members have 1000 acres of alternative crops in 18 Iowa counties. In 2004, the Greene Bean Project farmers produced over 700 acres of azuki (small red edible bean) for export to Japan. This paper will share the cooperatives introduction, progression and issues of azuki production in Iowa and direct marketing to Japan.

### Introduction

The Greene Bean Project (GBP) was born from the frustrations of farmers who were not satisfied with the economic climate of the agriculture industry in the late 1990's. Cash prices were depressed and world stocks were high. Brazil's production was growing by leaps and bounds, threatening to further depress the situation. Drawing on the example of past generations, individual farmers began to seek a return to a more diverse set of markets to the corn/soybean rotation they had become dependant upon. Many alternatives were investigated. Nearly all required expertise in a new area. Others required expensive or specialized equipment. In that time of economic uncertainty, most were reluctant to purchase new equipment or learn skill sets in an unknown industry when they were already making payments on expensive row crop equipment and were good at what they were already doing. It seemed as though there was not going to be an easy alternative and if the individual farmers wanted to do something different, they were going to have to go it alone.

At about this same time, a new banker came to the Jefferson, Iowa area. Keith Roberts returned to his Midwestern origins from Colorado. He heard the frustrations of several individuals and the desire to try something different. Instead of commiserating, Roberts proposed a solution. His idea was to bring a group of like minded producers together, use existing equipment and facilities to grow a crop similar to what we already produce that would have greater potential to return a profit. His experience in Colorado led him to suggest some sort of dry beans. His thought process was that if they could be grown in Colorado on soil the consistency of cement, they should do even better growing on some of the best farm land in the world.

The group started meeting late in 2000. Roberts had done some basic research on different types of dry beans that might be good candidates to consider trying. As a group, the producers wanted beans that could handle going through unmodified combines, dropped and stored in existing

grain bins and handled by the trucks and augers we already owned. In the end, the producers decided to focus on garbanzo beans (chick peas) and azuki. Most had never knowingly encountered garbanzos and none knew what azuki was.

Right from the start, the whole local agribusiness community was involved. Greene County's Extension Director, Craig Hertel, used his networking skills to introduce the Greene County farmers to Michigan and Washington producers and scientists with experience growing these crops. These experts shared their knowledge and experience through personal visits and conference calls. Local agronomists contributed time and expertise. The banks provided meeting space. Others introduced us to people that had experience marketing crops internationally.

By spring of 2001, the group had a working name, the GBP, a steering committee and 24 producers willing to contribute 475 acres to the experiment. Producers were assigned a crop to grow, either azuki or garbanzo beans. Seed was procured and, following the advice of our experts, planted.

That first season resulted in disappointing yields in the azuki and a disaster with the garbanzo beans. Nearly all of the garbanzo beans contracted ascochyta leaf blight, a decimating disease. A large percent of the garbanzo beans started to germinate in the pod prior to harvest, due to a warm, moist fall. As very few herbicides were labeled for those crops in Iowa, weed control was a serious issue. Harvest losses were high and some producers lost more grain due to improper storage and handling. The majority of the garbanzo beans were sold as salvage. The only reason why the group persevered is due to the interest in and the price garnered by the azuki. Most went to Michigan for export to Japan and some were sold for domestic use at .50 per pound (\$30 per bushel).

In subsequent years, the GBP successfully added black turtle bean and non-GMO soybean to the portfolio, done trials on many kinds of other dry beans and experimented with edamame; soybeans picked green from the pod. Iowa State University Extension has done herbicide and population trials. The group applied for and received a Section 18 label for Reflex herbicide. A grant from Farm Bureau allowed members the GBP board of directors to travel to Japan several times, resulting in direct exports to Japan by the GBP. The GBP has hired an Executive Director, Chris Henning to oversee the day to day operation. There are more than 40 members growing crops across the state. The group filed as an LLC and is considering quality growers as new members each year. The Japanese small red bean (azuki) association members recognize the quality of the GBP beans and demand has outpaced supply for the past two marketing years.

### **Agronomics**

Production of the beans that GBP grows, azuki in particular, is very similar to growing non-GMO soybean for seed. The main difference is that there are fewer options for herbicides, due to labeling. These limited options have actually worked in favor of the GBP as the Japanese are not as trusting of beans from areas of which herbicide use is less restrictive. As these beans are intended for human consumption by members of a society who are notorious in their desire for traceability, the need for quality is equaled by the need for complete record keeping. The GBP members are required to keep complete record of all activity on their fields, similar to an ISO

9001 accounting. Documentation is done throughout the growing season and fields are regularly inspected and photographed. Customers expect to be able to inspect the fields and require samples of the beans after they are cleaned, before shipping.

### **Conclusion**

The GBP has benefited from hard work, good support and fortunate timing. The project as a whole has been relatively successful. Individual members have had varying degrees of success from year to year. In 2004, the highest production was 2460 pounds per acre (41 bushels/ac). That farmer will gross over \$900 per acre. In 2003, the same farmer grossed only \$180 per acre, due to dry conditions. The GBP encourages all producers to start production with small amounts of land and slowly expand from there. Even though they are now becoming experienced, most farmer members still treat their GBP acres as experimental; risking only the amount they are willing to lose in a worse case scenario. The group continues to monitor world demand for different crops and research new opportunities. More visits to Japan are scheduled and the group is seeking new members willing to adhere to the high standards of quality the customer demands. The group and Iowa State University are conducting different trials in order to achieve more consistent yields. The future seems promising for such alternative enterprises and a group approach has been beneficial to the members of the GBP.