

BELLE FOURCHE ECONOMIC DEVELOPMENT



Board of Directors Meeting

June 10, 2020

Time: 7: 00 a.m.

Location: 5th & Grant Plaza
608 5th Ave, Belle Fourche

COVID 19: The Impact on Small Business and Resources Available

May 29,2020

Time: 12 Noon

Career Learning Center of the
BH Facebook Live with Matt
Stone, Small Business
Development Center.

Cruise Night and Drive-In Movie

June 20, 2020 -

Time: 5:30 p.m. - 10:30 p.m.

Cruise through Aladdin,
Beulah, Spearfish and back to
Belle Fourche. FREE! Hosted
by Center of the Nation All Car
Rally.



June 30 - July 4, 2020

Full Schedule of Events & Tickets:

BlackHillsRoundup.com

Garro's Get to Control the Weather

COLLEEN BRUNNER | news@bellefourchebeacon.com

NISLAND - "I got addicted to it a little bit," said Chris Garro of his large greenhouse. "It still amazes me that I can be out here in the winter time in South Dakota and it's warm and green. It's pretty neat. And, we get to control the weather." Chris and Alexa Garro, local Nisland (Arpan) farmers do things just a little bit different. "We wanted to move back to the area," said Chris, who had been raised here and graduated from Newell high school in 1991. "We couldn't afford the larger places and started looking at smaller properties. But you can't make a living very easy on smaller places. I had always been interested in gardening and plants."



Salad from Arpan Aquaponic Grown Lettuce | Garro's. Lettuce plants are started under grow lights on the right and are moved by hand to the left as they grow and take up more space. It is a bit labor intensive at that point, but Chris says the older the system gets, the more stable it is and the less it has to be monitored. They are working toward a back-up generator to run the heating system should power go out, as well as a monitoring system of the entire greenhouse that they can check from their phones. Brunner Photo



Chris and Alexa Garro stand in their aquaponic greenhouse where they grow lettuce, sprouts, and microgreens for local grocers. The freshest you can buy. Each holds a leaf lettuce head with intact root system. Brunner Photo

He said he started doing research and had built a smaller greenhouse where the couple grew quite a bit of their own produce. "I wanted to get the highest yield I could get with what we have right now," Chris shared. "We can produce a lot of plants for the size of the building."

If you drive by the Garro Farm on Arpan road during the night-time hours, you will see a pink glow coming from the greenhouse. That is the one string of grow lights that "help the babies (lettuce plants) get started," according to Alexa.

So far, the couple has been producing and selling microgreens, small shoots from peas, radishes, and sunflowers. In late April their clamshell containers of lettuce started showing up in local grocery stores in Belle Fourche, Spearfish and Sturgis and include Bee's Knees, Lynnsand Lueders in Belle.

Some of the containers they use are made from 100 percent recycled green soda bottles. Those are the microgreens which Alexa said are great on sandwiches and burgers and make a nice addition to the salad made from their aquaponic-grown lettuce.

Many are familiar with hydroponic growing, where plants are grown in a water based, nutrient rich solution. It doesn't use soil, instead, plants are started in mediums such as clay pellets, peat moss or vermiculite. The Garro Farm uses aquaponics, which combines the use of aquatic animals such as snails, fish, crayfish or prawns in tanks, combined with hydroponics in a symbiotic environment. The water is continuously recirculated back to the aquaculture system.

"Part of the reason we're doing aquaponics, is because you don't need to add all the nutrients, like you do with hydroponics," said Alexa. "The water is the most important part. We use minnows, local bait fish." The fish are put into a tank where the water that they swim in is used to grow the sprouts and lettuce. "Aqua is harder to get going and manage, but once you do it works well," Alexa shared. "We don't want the chemicals that go with hydroponics."

She tests the water in the beds daily to monitor pH levels. She got a printout from Butte-Meade Sanitary District that showed the hardness of the water at 600 ppm. "So, we need to test nitrates, nitrites, ammonia, water temperature, and track it," she said. "Lettuce loves Butte-Meade water!" The ammonia converts to nitrite, is broken down into nitrates. It's not high-tech at all." Garro also tests the iron levels and, if necessary, they add a special powdered iron to the water. "There's lots of daily testing."

Chris said it only takes about 800 gallons of water to raise all the lettuce in the beds. He said they add around 150 to 200 gallons per week to keep water levels consistent.

The Garro Farms greenhouse is the only commercial aquaponics business in South Dakota. They are technically not organic as they do not have the certification.

"I don't think we could grow (plants) anymore organically than we are," said Chris. Alexa said that in her marketing research she found that organic produce falls second after local supply.

"From a sales perspective it's better to go local," said Alexa. "We don't use chemicals, and the nutrients come from the fish." The fish come from a local pond and minnows are supplied from the Wheel-In Bait Shop on Fisherman's Road by the Belle Fourche Reservoir. "We buy the minnows from them, use them 'till they get too big and then sell them back," said Chris. "Basically we are raising the fish for them."



Alexa Garro lifts one section of the aquaponic Styrofoam to show the root system. The plants are grown entirely in water. In the water there are thousands of minnows which provide the nutrients for the aquaponic system Garro Farms



Alexa Garro holds a pea shoot in one hand and the recycled soda bottle container it is packaged in for local grocers in the other. - Brunner photos



A tray of sunflower sprouts just getting going. The sprouts have to have a weight placed on them as they are sprouting so they grow upwards.



Garro tests the water for several different things on a daily basis. This helps keep the aquaponic system in balance.

The couple started building the current greenhouse, putting pipes in the ground in October and now have hit their first run of lettuce. The heating is done with used oil, recycling what they get from local people. "It's clean burning," said Alexa. "The pink glow at night is the grow lights. No we aren't growing anything but lettuce," she laughed.

They researched pricing to compete with the produce coming from California, which Chris says is "already on its way down" in quality when it gets to the stores. By picking and shipping locally twice a week, the Garro Farm lettuce is the freshest you can buy locally, that is grown in the aquaponic system.

The couple laughed as they discussed the pros and cons of "leaving the root on" the lettuce heads. Chris said he feels it needs to come off so it looks "clean" but Alexa said the longer life leaving the root on would appeal to some people. The heads of leaf lettuce in the local stores compares in price to that being shipped from other parts of the country, primarily California, and it will last much longer due to the fact that it is picked fresh and transported to the stores within hours. The couple has plans to put a special polycarbonate "roof" on the greenhouse to protect from the hail that is prevalent in the area. They also plan to expand, adding more greenhouse space to grow tomatoes, cucumbers and other plants. Alexa is experimenting with cilantro, basil and culinary sage.

"I don't think we're going to be able to keep up with local (demand) even with being full," said Chris. "We will sell to locals as well as wholesale to grocers." His son has been coming from Sturgis to help with building the greenhouse and other tasks. They often move around 1600 heads of lettuce by hand. It doesn't sound like the couple is afraid of hard work, however. "Whatever yard you see out there," said Alexa, waving her hand toward the house and surrounding land, "Will eventually be greenhouse. It's not just fresh, it's also fun."

You can find more information and contact the Garro's at www.garrofarms.com website or their Facebook page at facebook.com/GarroFarms.



**Black Hills Roundup Parade Registration
July 4th, 2020 – 10:30 A.M. – Belle Fourche, SD**

PARADE ENTRY DEADLINE: JUNE 15TH, 2020

Entry: _____

Who should we mail the set of numbers (for the float) and instructions to??

Name: _____

Address: _____

E-Mail: _____ Phone: _____

Size of Float/Number of members or riders: _____

Describe entry: (Parade announcers will be describing your entry from this description; write or print legibly.)

For judging purposes, please choose one category.

Cash prizes are awarded for 1st place in each category. Also, the **McClure Ranch Memorial Award (\$100)** will be given to the entry that best depicts this year’s parade theme. The **Faye Kennedy Memorial Grand Marshal Award (\$100)** goes to the most patriotic entry, and the **Eva Hanify Rail Memorial Award (\$100)** goes to the entry best representing our western heritage.

- Historic Horse Drawn Wagon/Buggy Religious Organization Band Business Float
- Organization Youth Group Riding Club (horse) Reunion/Generation Float
- Riding Group (motorized) Best Dressed Western Youth (12/under) Musical Float

Please return registration by June 15th, 2020 to:

Mitch Johnson, Parade Chairman
1509 Walworth St, Belle Fourche, SD 57717
(605) 892-5561
mitch.johnson@buttecountyequipment.com

Thanks to our Parade Sponsor:



March 10, 2020

