

VERMONT SERIES – VERMONT GREENHOUSES

Buddy: Hi. I'm Buddy Tignor and we're here to talk about the greenhouse industry in New England today. Overall, agriculture in New England is worth over 2 billion dollars, about a third of which comes from the dairy industry and about a fifth of which comes from the greenhouse and nursery industry. Vermont is the largest contributor to New England farm receipts. In Vermont the greenhouse industry is on the small side. It's about 40 acres or 16 hectares. Eighty-four percent of that is dedicated to the production of floriculture crops and sixteen percent is dedicated to the production of vegetable crops. That 40 acres is represented by about 665 different businesses. Greenhouse production in Vermont presents some special design and production challenges. In the summertime it can be over 100 degrees Fahrenheit and in the winter it can be as cold as minus 40 degrees Fahrenheit. We also average about 92 inches of snow per year and it tends to be overcast. Today we're going to show you segments and highlights from two greenhouse operations in Vermont; Claussen's in Colchester, which is a large retail/wholesale floriculture production operation and Crossroads Farm in Fairlee, Vermont that is a family-owned vegetable farm which uses greenhouses to produce vegetable transplants for their operation.

VERMONT SERIES 2 – CLAUSSEN ENTERPRISES INTRODUCTION

Buddy: Hi. I'm here today at Claussen Enterprises Incorporated with Chris Conant, the Vice President and Chris I was wondering if you could give us a short overview of the operation here and maybe a little history about how you got involved?

Chris: We are four retail locations in a wholesale/retail greenhouse operation here around Chittenden County in the Burlington area and we have about 400 thousand square feet of greenhouse space when everything is under production. We have 35 year-round employees that work for the company during the course of the year but we get up to 90 seasonal employees during the springtime. We do about 85% of our gross sales in 15 weeks for the year so you can appreciate how busy we are during the months of April, May, and June so that's where the year-round employees come in and how important they are to our function and profitability and so we are very dependent on them.

A little bit of history behind Claussen's, it was started 32 years ago by William Claussen who is my business partner and he at about 20 years ago decided that he would back off a little bit, do a little bit of retirement and so he is still involved with the business on a financial basis but is a silent partner with myself, and so my family and I run the business. I have three children and my wife does all the book work and is responsible for all the financial end of the business. And we have the four retail stores plus the greenhouses so it's definitely a full-time operation. I grew up on a dairy farm. I've been here for 26 years, became a partner 20 years ago so there's quite a similarity between farming, dairy farming, and working in the greenhouses. That's a seven-day-a-week business as you know and so the only thing I'm dealing with other than my family who's still dairy farming is that I'm dealing with customers and not cows.

I had a great opportunity when Bill Claussen was looking to semi-retire after I had been here for five or six years and he gave me the opportunity to prove myself over those years and we really worked very well together still as partners. And so it was great for me to be able to come into a business like this, work with him hand-in-hand to develop it and hopefully be a life-long success story I would say.

Buddy: So you mentioned that you had grown up on a dairy and sort of the common thread is that they are both a lot of hard work. What sort of drove your decision to move into the greenhouse business?

Chris: Well, my brothers still run the dairy farm. We have, it was a fairly large dairy here in Vermont, still is. Very progressive. One of the things that became apparent to me that there would be a decision down the road, to try to make a decision whether three or four of us could belong on the same farm together. So I chose to go this route to come into the greenhouse business and it was a great option I felt at the time and since then it's been awesome. I love the industry.

Buddy: Great.

VERMONT SERIES 2 – COMPUTER USE

Buddy: If at all, how have computers changed your production in the last five years?

Chris: Oh it's changed it immensely. We are fortunate enough to have my wife join us after working at IBM for 15 years and 15 years ago she joined us to come in and re-evaluate just that one aspect so our bookkeeping process is all computerized. All of our production process is computerized now and we're working with computer mechanization for seeding, where we used to use the old hand seeders and hand transplanting. Now we're using computers to help us through that process and it's made an incredible difference in our production cost. We're fortunate enough to be able to jump on that bandwagon right at the right time and it's helped lower our labor costs and do a better job in the end as far as our production so it's made a big difference to us.

VERMONT SERIES 2 – LABOR ISSUES

Buddy: So Chris if you could tell us a little about sort of the number of employees? How many are full-time and part-time? And maybe a little bit about the demographic, the average age, that sort of thing?

Chris: We actually have 32 year-round employees and we get up to 90 employees in the spring when production is at its highest. We have quite a group of different individuals that work for us, some are seasonal, some are full-time, some are working part-time for us. And the one good thing about it is the diversity in age is anywhere from my children

being high school age to...we have one gal that's worked for us for 36 years, longer than the business has been here. She's 86 years old, still works three days a week, and does whatever she wants but she's awesome. So we've got quite a group. A number of individuals that come back year after year and that are working with us every season and we're fortunate and they basically work through their own hours and such. So it works out great. We're very fortunate to have that kind of relationship. It's a relationship that I'm constantly working on. Our average is 14 years out of the 32 full-time people and so you can see the commitment they have to us and we have to them.

Buddy: So maybe you can mention a little bit about the interaction you might have with local education programs as far as internships and projects.

Chris: We're fortunate enough to be able to work with the University of Vermont with the Plant and Soil Science division there and we have an internship program here just about all the time. We also are very fortunate to be able to work with the Regional Technical High School and I was on the board there for a number of years and I was able to work with the Natural Resources Department. And so we're constantly bringing in interns through that program also. A great opportunity for them and a wonderful opportunity for us

VERMONT SERIES 2 – LIFE CYCLE

Chris: One of the things that we do a fair amount of is we do a 4 and half inch geranium and we do about 100 thousand of them. This is a vegetative cutting that's been in the ground for about 10 days or so and once we do have them in the flats for a period of a couple of weeks obviously in Vermont we can produce a pretty decent looking geranium. This one has been in the ground for about three weeks or so.

VERMONT SERIES 2 – PLANT NUTRITION

Buddy: Perhaps you could tell us a little bit about how your plant nutrition needs are met.

Chris: At times it becomes difficult because we do make all of our own soil media here still by using components instead of buying a pre-mix. We specifically make the soil for the crop that we're doing at that time so we add different additives depending on what the crop is. Our monitoring system is both with the heart and the eye and we work with The Peter's Laboratories and do soil testing on a monthly basis and send the testing in. We do our own pH testing of water and soil on a regular basis and so it is a difficult program. It's probably one of my most difficult areas that I deal with because of the fact that it does take a lot of close monitoring. And we need to make sure making our own media, we have to constantly make sure that it's being done properly so we just can't throw say a temporary employee into that mix. It's very important that we use our full-time people

when we're doing the soil mixing process so it is definitely one of my most challenging aspects of the business.

VERMONT SERIES 2 – PEST CONTROL

Buddy: So, Chris in general terms if you could tell us a little bit about your IPM procedures and maybe about some of the potential conflicts that happen when you have retail and production space overlapping.

Chris: Yeah, there are always conflicts when that happens. Our growers are constantly scouting obviously when dealing with IPM and it's very important to us that we maintain a constant program. And one of the challenges that we face is that during our retail time of the year especially in the spring when we have so many diverse crops and multiple crops we're constantly dealing with using applications of various chemicals in certain areas but when you're mixed with a retail/wholesale operation we're having to deal with doing a lot of scouting, doing night applications if necessary in certain areas. And fortunately we are able to move crops from other production houses into these retail structures so it does make it a little easier but we definitely do a fair amount of work to just to create from having conflict. So we use yellow sticky cards everywhere, in every house. Our growers are working on a daily basis doing scouting and I have to be truthful with you that when we first started the IPM program probably a dozen years ago our chemical application and chemical cost of application dropped down 30, 40 percent. We're doing much more effective operations because of the fact that our applications are specific and we're spending more time looking for problems and less time just kind of doing what the old days were of just going in and doing preventative applications. So it's a great program. I really feel that it has benefited everyone employee-wise, environmental-wise and in the bottom line, the company's checkbook and that's what it's all about.

VERMONT SERIES 2 – STRUCTURE

Buddy: So Chris is going to spend a little bit of time now telling us about the structure that they designed and talk about the framing materials and the glazing materials and maybe some of the special design parameters that you considered when you set these houses up.

Chris: One of the things that we were faced with is that we are both wholesale and retail so we had to create an environment that was aesthetically pleasing for the retail trade but at the same time be effective as far as production was concerned. So we were faced with trying to come up with a structure that would last the Vermont winters, be able to take the snow loads that we have and at the same time be somewhat efficient. So in this application we're using Exolite® as a glazing. We're using 2 x 6 pressure-treated frame construction with galvanized inch and quarter pipe driven into the ground with a jackhammer every four feet to create a tall side wall because we needed to be able to

create basket room. And in this case we feel that this was at the time, 22 years ago, was the best way to build these structures. Would I do it again? It was a long year of building because we do our own building as many greenhouse operators do. We do our own maintenance so the maintenance of a pressure-treated structure is quite different than using a house that was pre-fabricated. I would be probably willing to do it again just be a little smarter when it came to using more steel possibly for support structures and a little less of the 2 x 6 structure or pressure-treated wood. So great facilities. It's always a challenge between retail and wholesale. It's always a challenge with production and retail trade as how you create a great environment for both applications. So we always struggle with that.

Some of the challenges that we face in the Northeast we get the lake effect off from Lake Champlain and at times we have anywhere from 6 to 8 feet of snow load on these breezeways that connect this range and so we're always faced with that challenge here in Vermont. You never know what kind of snow load we're going to have. So we had to think of that when we were building this structure and make sure that the integrity was there for that kind of support on the snow load.

Buddy: Sort of an interesting situation here at Claussen's. They actually designed a lot of their own greenhouses and benches and Chris is going to tell us a little bit about that. And I think we're going to start by covering some unique features of the bench here.

Chris: One of the things that we did many years ago is try to find a way that we can heat the soil and try to not only lower our fuel cost but to try to give us a balance between growing plants in cold soil/cold air, warm soil/cold air whatever the scenario is. So in this application we ended up using BioTherm® type heating. We actually used...this is carburetor hose out of a Cadillac rubber company. When we built this range we ended up using 2 x 4 pressure-treated structures for benching and then using expanded metal on the top of the bench but we used a dato blade to cut out the 2 x 4's and then our BioTherm® tubing was inserted into those dato cuts.

Buddy: One of the benefits of a grower designing their own house is they come up with some real innovative features that you might not see everywhere. One of the innovative features that they came up with here at Claussen's you see with this gutter on the end of the bench and I'll let Chris explain what it's for and how it's benefited his operation.

Chris: One of the challenging times that we had during the month of January when it was 20 below out I was a little tight for space and decided that we needed to come up with more space in this range, so we were looking at some 4 -inch material and decided that 'Well maybe we should put a length of eaves trough at the end of each bench.' And so we ended up using eaves trough and we literally just drop a 4-inch pot along the end of each bench and we're fortunate enough to be able to use it as a selling tool also because as the vine grows down and there's an opportunity for the retail trade to walk through these houses it's a sure sell because people do see how they're used and the vines usually trail down to the floor. And there isn't a person that doesn't walk out of here without a few. So it was a great opportunity to use both space and a marketing tool.

VERMONT SERIES 2 – FINAL COMMENTS

Buddy: Chris I know you have a lot of challenges to running a successful greenhouse business but what is your single greatest challenge to running a success business?

Chris: I think probably one of our biggest challenges is that we do 85% of our year sales in 15 weeks so when you look at our...in the Northeast geographically we're located in an area where our sale time is basically May, June and to think that our employees have to prepare for that. We as a business have to prepare for that. It's very important that my staff is ready to go, focused on production and then focused on sales. And so we're working seven days a week during our busy time and then when we do come down off that hype it's necessary that we kind of take it a little slower during the summer time. And so that's probably my biggest challenge is to balance out that labor need and try to build up to that time and get through it successfully.

Buddy: So what is one thing that you wish you knew more about?

Chris: Probably one of my biggest challenges is knowing the ...having that crystal ball to know that in the retail business that we're spending our advertising money effectively. We spend three percent of our gross sales on advertising and we've done that since 1972. We use that as a guide. We continue to do that but boy it's one of my biggest challenges to know if it's effective. And unless I stood at the door or stood at the register and asked every person that walked through the door...I'd say that's my biggest, biggest challenge.

Buddy: What's one thing that you wish your employees knew more about when they came to work for you?

Chris: I'd say probably the need to be able to work seven days a week and be able to put the labor in that's necessary to run a successful greenhouse business in Vermont. I think once they're here and once they work for us for a period of time they clearly see the definition of working hard and working in a flex schedule but we do everything possible to make that work both for the company and obviously for the employee.

Buddy: Now you've been here, Claussen's, has been here for over 30 years. Where do you see this business going in the next 10 years?

Chris: I think one of our biggest challenges as we look forward to the next 10 years and as we re-focus our energy is just trying to figure out where we want to head. Multiple locations isn't always the answer and with having four locations that we have it brings different challenges then you'd ever expect. Fortunately, I have an opportunity to re-evaluate that at this time and so we're kind of pulling the reins in a little bit and trying to re-evaluate if we can have people work seven days a week and do it successfully. And so that's probably the one area that I'm going to work on; customer service, employee/family relations and making sure that they have time off with their family and

how important that is to us as a family operation, and just looking towards doing a better job with quality. So I would say that that would be the best thing.

Buddy: So students that are coming to you with a degree in plant science, whether it's horticulture or plant and soil science or greenhouse management, what are some things that you really feel like they should know if they were to come work for you?

Chris: Well fortunately because of the relationship that we have with the University of Vermont we are able to work closely with them in the different programs and we have interns that work with us most of the time and so we are constantly trying to understand what the needs are as a person coming out of college into a work environment and vice versa so I'd say probably the commitment on working hard, having to share weekend flexible schedules and just having an understanding of what it means to be a good person and a good worker and if you have the love in your heart for growing plants and being in the greenhouse business then you'll survive in it. It's an awesome industry.

Buddy: You have a lot of experience in this industry. If you there were a piece of advice that you'd like to leave a student that's thinking about entering the industry what would it be?

Chris: Probably the same advice that I got from Bill Claussen 26 years ago and that was that you can provide your family with a great opportunity. You can work hard but reap the benefits of working in an environment such as this and also working with plant material, I love it. I think it's engrained in me and I think once a person is impassioned with working with plant material they feel that it's going to be their life. So you clearly will be able to understand whether or not working with plants is a great opportunity once you're in it for a few weeks or a few months and I think it's a rewarding decision on my end.