

***Precision***                      ***Tomorrow's***

***A******pplication***                      ***Technology***

***T******illage***                      ***Today***

***S******ystems***                      ***for your farm!***

***For almost 30 years I have been working with and listening to innovative farmers to develop cutting edge equipment.***

***This booklet shows the progress these farmers and I have made the past few years in tillage, weed control and harvesting of sweet potatoes and tobacco.***

***Presented by: Clifton Dixon / 2-2-2017***



## Clifton Dixon/Owner / PATS Sweet Potato Research & Equipment Development, Fabrication & Refurbishing Services

2400 Gold Rock RD, Rocky Mount, NC 27804 | 252 916-3828    clifton\_dixon@hotmail.com

### Burch Farms

11/11/2016

685 Burch Rd, Faison, NC 28341

Good morning Jimmy, Bill and Ted,

It has been a pleasure and a great opportunity to work with you these past 2 seasons on cone rolling, cultivating, mechanically pulling pigweeds and sweet potato mother roots.

In this presentation I will show you how you will be able to:

1 – Pre bed all of your land months ahead that will allow you get in quicker in a wet spring and have moister in a dry spring.

2 – With your hydraulically driven cone roller equipped with a cultivator sweep and waffle coulters on each row you will be able to have consistent, clod free beds in the toughest conditions and have moister in drought conditions.

3 – As with stale seedbed cotton you will be able prepare your seedbed days ahead to allow the first flush of weeds to germinate and be eliminated with a burndown spray before the crop emerges.

4 – With the many small seeded crops you plant, the firm clod free seedbed will allow you to plant shallower reducing the chance of having to replant.

5 – With my new row unit you will be able to double plow your organic crops. We can mount a pair of 3 spider gangs on the front to peel the weeds off into the middles and a pair of 4 spider gangs to chop the weeds up and throw the soil back to the row ahead of the rear sweep.

6 – Build a cultivator that can plow between the rows planted behind your 8 row/twin row planter.

Jimmy, I appreciate you recommending me to Scott and Bobby Britt. This gave me the opportunity to build the first hydraulically driven cone roller that I am aware of in the United States. I also appreciate you putting in a good word to Henry Chancy and Jim Jones about my cultivator. I know that it sometimes is frustrating and expensive working with me in some of this development work. I promise you that I and my equipment will be one of the best investments you have ever made!



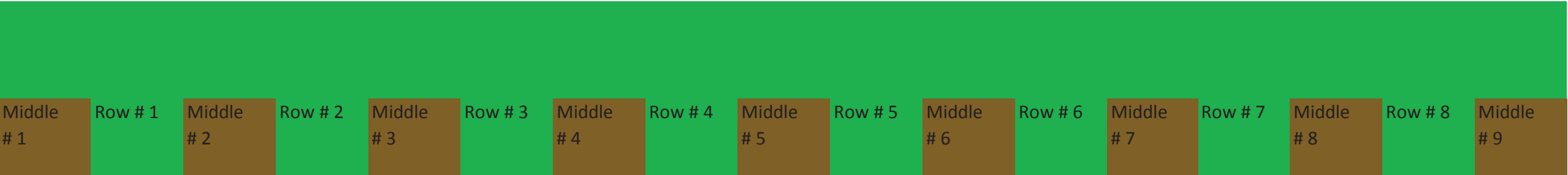
**Above: 8 Row 22" wide rollers, 14" in diameter with 20" cone disc blades on 40" rows**

**Britt Farms 4 Row 40" hydraulically powered cone roller**



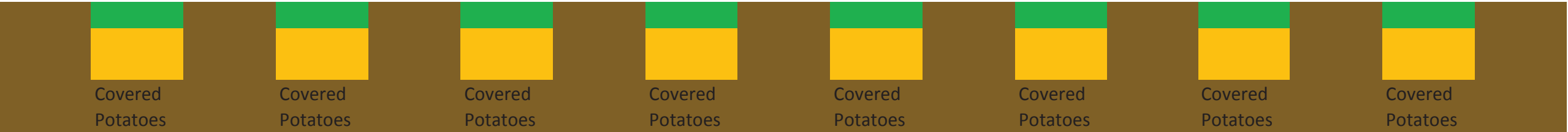


# PATS Sweet Potato Vine & Mother Root Management System with Mechanical Sizing and Harvesting Option!



Trimming the top of the row will:  
1- Make the stems tougher.  
2 - Make vines easier to grasp.  
Cutting the vines in the middle will:  
1 - Make the vines easier to train.  
2 - Speed decomposition of vines.

## Step # 1 / Cut the vines in the middle and trim the top of the row



Pulling the mother root will:  
1- Tighten the skins.  
2- Eliminate the need for devining device on harvester.  
3- Will allow precision management of

## Step # 2 / Pull the mother roots, chop the vines and cover the sweet potatoes

sizing for maximum value!



The PATS harvester will:  
1- Allow sweet potatoes to be graded in the field.  
2- Eliminates canners having to be cured with the # 1 sweet potatoes.  
3- Eliminates jumbos having to be cured with the # 1 sweet potatoes.  
4- Allows canners and jumbos to be shipped to processors directly out of the field.  
5- Will reduce # of workers needed & drastically cut labor costs!

The PATS harvester will be designed to mount on John Deere 9400, 9500, 9600 or later combine models.

## Step # 3/Harvest 4 rows while sizing into canners, # ones & jumbos while placing in separate curing bins!





**Top: Millstream Farm's 8 Row 44" PATS Cultivator on KMC Stacking Toolbar.**

**Bottom: Jones Family Farms 4 Row 40" Cultivator On Lilliston Toolbar**



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August 30, 2016

**Sweet Potato Harvest Research Proposal  
Presentation to the**

**NC Sweet Potato Commission**

700 E Parrish Drive, Benson, NC 27504

**Board of Directors**

**Rob Hill, PRESIDENT** / Tull Hill Farms / Kinston, NC

**Brent Leggett / Vice President** / Leggett Farming Partnership / Nashville, NC

**George Massengill/Secretary-Treasurer**/Hilltop Farms/Four Oaks, NC

**Adam Wooten**/Wayne E. Bailey Produce Co. / Chadbourn, NC

**Jeffrey Lee** / Jeffrey Lee Farms / Benson, NC

**Jim Jones** / Jones Family Farms / Bailey, NC

**Johnny Barnes** / Barnes Farming Corporation / Spring Hope, NC

**Keith Smith** / KS Farms / Four Oaks, NC

**Stacy Thomas** / Ham Produce, Inc.

**Thomas Joyner** / Nash Produce / Nashville, NC

**Scott Sullivan** / Sullivan Farms Inc. / Lucama, NC

**Robert Boyette** / Boyette Brothers Produce / Rock Ridge, NC



I have been very blessed to have worked with these farmers on the PATS hydraulically driven cone rollers, cultivators and the sweet potato mother root puller this past season.

Warsaw Welding and I are currently fabricating parts to build 2 / 4 row cultivators for O J Smith Farms in Nash County and an 8 row for Kornegay Family Farms in Johnston County.

I plan to deliver the parts next week to start welding, painting and assembling their machines next week. If anyone is interested, call me and you can come visit while we are welding, painting and assembling them.

I will not have prices until Warsaw Welding prices the parts out. You will be able to buy the parts, weld them, assemble and paint. You will also be able to buy the parts welded up from Warsaw Welding. Painting and assembly is also available from Warsaw Welding.

I am currently having a website developed with a blog to show past and daily videos of our progress. Please be patient, as I am learning as I go. I am very unexperienced at social media, but I know that I have to master that end also to have a successful marketing program.

I made a research proposal to the NC Sweet Potato Commission to document the advantages of sweet potato vine management and mother root pulling. The hurricane knocked that out, but I am looking forward to making another proposal for this year. It will be posted on my website. I am also very excited about the harvesting system I have developed! I look forward to talking with you soon!

**Clifton Dixon**  
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