

Circle Fresh Farms Track and Trace Implementation Handbook

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Circle Fresh Farms – Grower's Track and Trace Handbook

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I. Overview of Product Traceability Initiative (PTI)

Background—Food Safety and the Changing Context of the Fresh Produce Industry With the rapid internationalization of the food industry, concerns over food safety have grown exponentially. These concerns have been magnified by a series of high profile food borne illness outbreaks that have caused both sickness and death. As a consequence, many producers have been seriously impacted by recalls as well as general consumer avoidance of foods linked to the outbreaks. Often these producers have no role in the outbreak and may be thousands of miles from the incident. However, without a clear means of demonstrating that their products are not responsible, farmers cannot substantiate the safety of their crops.

In response to these concerns, the Federal government passed the Food Safety and Modernizaiton Act in 2011 (Food Safety Modernization Act) that significantly expanded previous food safety responsibilities for the food industry. Final rule making for this Act is still in process, but it is clear that the new law will require substantially more record keeping and accountability for primary producers. (See http://www.fda.gov/Food/FoodSafety/FSMA/ucm334114.htm for more information on proposed rules).

Impacts on Producers

Two broad areas of response must now be considered by producers who want to minimize the potential risks and impacts of food safety issues and oversight.

<u>Food Safety Plan</u>-First, producers will likely soon be required to have written a comprehensive food safety and food handling plan—typically referred to as a Good Agricultural Practices (GAP) and Good Handling Practices (GHP) plans. Currently these efforts are voluntary but in many cases proactive retailers such as Wal-Mart, Safeway, Trader Joes and others are starting to require that their producers have these plans developed and their ongoing monitoring protocol in active compliance.Typically these plans must also be reviewed and field checked by a third party independent evaluator. In Colorado, the State Department of Agriculture provides this service. The State of Colorado's Department of Agriculture provides in-state support and training around the GAP program including voluntary auditing services. More information on this program can be found at http://www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1248443572427

Producers can also retain a number of private firms who specialize in these third party audits including Primus <u>http://www.primusgfs.com/index.aspx</u>), Scientific Certification Systems (<u>http://www.scsglobalservices.com/?scscertified=1</u>) and SQF <u>http://www.sqfi.com/suppliers/certification-steps/</u>).</u>

<u>Track and Trace Implementation</u>—While having a food safety plan is an essential first step in demonstrating that a producer is using best available practices to minimize



and manage food safety issues, the producer must still be able to demonstrate that their products were not associated should an outbreak be isolated to a particular produce type with multiple producers. Until recently, the cost and complexity of this process made it cost and resource prohibitive to smaller producers. However, with recent advances in digital technology, these systems can now be developed and implemented by smaller producers. This project was designed to evaluate the options available for smaller producers as well as design and implement an actual Track and Trace pilot project using a technology selected from among those currently available to smaller producers.

Overview of Track and Trace Systems

With the growing number of high profile food borne illness outbreaks, the produce industry recognized the likelihood that food safety could be imposed as a regulatory framework. They could also see the rapid growth of independent but uncoordinated efforts to develop produce tracking systems. This raised the prospects for a series of competing systems that would likely create both retailer and consumer confusion further increasing the likelihood of government intervention. To avert this outcome the produce industry began taking proactive steps in the mid-2000s to create a shared platform for a single produce tracking framework—The Produce Traceability Initiative (PTI-<u>http://www.producetraceability.org/)</u>.

<u>Produce Traceability Initiative</u>--The Produce Traceability Initiative (PTI) is a voluntary, industry-wide effort designed to facilitate the fresh produce industry to rapidly implement track and trace procedures in a standardized industry approach. PTI was developed and launched by some of the biggest entities in the produce industry including the Produce Marketing Association (PMA-<u>http://www.pma.com/</u>), United Fresh (<u>http://www.unitedfresh.org/</u>), GS-1 (<u>http://www.gs1.org/</u>), and the Canadian Produce Marketing Association (CPMA <u>http://www.cpma.ca/</u>). The PTI is an industry-led, supply chain-wide Initiative governed by a 34-member Leadership Council. Participants range from grower/producers and packers, to distributors and retailers. The use of common standards in the supply chain across the produce industry will significantly enhance the ability to narrow the impact of potential recalls or similar problems, protecting both consumers and industry and supply chain members.

The PTI initiative has seven defining steps that each company must complete to achieve compliance.

- 1. Obtain company prefix
- 2. Assign GTIN numbers
- 3. Provide GTIN information to buyers
- 4. Show human-readable information on cases
- 5. Encode information in a barcode
- 6. Read and store information on inbound cases
- 7. Read and store information on outbound cases

A detailed explanation of the seven steps can be found at the PTI website <u>http://www.producetraceability.org/</u>). The requirements of each milestone will impact each company in different ways and may require modifications to internal systems or processes. The level of impact depends on the degree of tracking chosen. At the most basic level to achieve compliance, a company must track product down to the case level. Most basic track and trace systems are designed to achieve this level of tracking. For some products—melons are a common example—tracking may be implemented at the item level. This significantly increases the complexity, data intensity and mechanization required to accomplish this task efficiently.

Case Level Tracking

For this purposes of this project and analysis, case level tracking was the level of tracking chosen. With the utilization of QR codes, it would be possible to integrate item level tracking at a later time if either customer requirements or regulatory oversight required this level of monitoring. Given the decision to develop a system compliant with the PTI standards, the first step in this process is securing specific numbering allocations that are specific to each company and its particular products. The foundation of this system is the use of a numbering protocol called the Global Trade Item Number (GTIN).

<u>Global Trade Item Number (GTIN)</u>--GTIN is a numbering system developed by GS1 System (<u>http://www.gs1.org</u>). The GS1 organization was formed in 2005 and comprises the former EAN International and Uniform Code Council (UCC) organizations. UCC is known for successfully implementing the 12-digit identification number known as the Universal Product Code (UPC) in the United States. EAN International later developed the UPC system for use outside North America. The system provides unique identification worldwide and a GTIN can be used in barcodes or as Electronic Product Codes in Radio Frequency Identification (RFID) tags.

GTIN is an umbrella term introduced to ensure consistent terminology worldwide. It is important not to confuse a GTIN with a barcode. A GTIN can be represented by 8, 12, 13 or 14 digits. The number is encoded using existing barcode symbology. The following tables show the different GTINs and the barcode used for encoding the number.

Global Trade Item Number (GTIN) Barcode

GTIN-8



Using EAN8 Barcode

GTIN-12



Using UPCA Barcode



Using UPCE Barcode

GTIN-13



Using EAN13 Barcode



GTIN-14



Using UCCEAN 128 (now known as GS1-128)

Using ITF14 Barcode



Using Reduced Space Symbology (now known as GS1 Databar 14) Barcode

Figure 1 provides examples of PTI compliant labels.

Figure 1



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The label typically includes both a numerical and bar code representation of a product tracking number. PTI has adopted the Global Trade Item Number (GTIN) system as the foundation of the PTI label system. This system was developed by the company GS-1 who now serves as the authorized source for issuing all GTIN numbers used in the PTI compliance system.

Each participating farm or producer must register with GS-1 and pay a fee based on the volume of sales it projects annually. GS-1 then authorizes a maximum amount of GTIN numbers for that vendor based on their scale of operations and the amount of their registration fee. Once the vendor or producer has secured this authorization and allocation of codes, it then goes through a process of registering each of its products to a unique GTIN number that will enable both the producer and its customers to track each of its product types. Guides for registering with GS-1 and for assigning GTIN numbers for products are included as attachments to this handbook.

II. Track and Trace System Comparisons

In choosing a Track and Trace system provider, there are a number of important factors to be considered. These include not only initial price, but ongoing costs (both for licensing fees and potentially for data storage); equipment, versatility, availability of on-site service and other considerations. As part of the analysis to evaluate which track and trace system would be most suitable for the Circle Fresh Network, a comparative analysis was conducted on the four leading system providers with products suitable for small producers. The rapidly changing nature of this field will lead to new vendors and products in the coming months and years. This assessment can provide a framework that new growers can use in evaluating potential service providers. The four vendors selected for the Circle Fresh comparison were:

- 1. PTI Print
- 2. Harvest Mark
- 3. Tru Trac/Foodlink
- 4. Redline Systems

A list of 28 system attributes were compared across the four vendors. The results from this analysis are displayed in the figure below.

Track and Trace Company Comparison

Feature	PTI Print	Harvest Mark	TrueTrac/FoodLink	RedLine-PTI Lite
Help Obtain Company Prefix, PTI Milestone #1	YES	NO		
Help Assign & Manage GTIN Numbers & GLN, PTI				
Milestone #2	YES	PTIPro		YES
Data Synchronization Files, PTI Milestone #3	YES	PTIPro	YES	
PTI Compliant Labels, PTI Milestone #4-5	YES	PTIExpress + PTIPro	YES	YES
Read & Store Information on Inbound Cases, PTI				
Milestone #6	YES	PTIPro	YES	YES
Read & Store Information on Outbound Cases, PTI				
Milestone #7	YES	PTIExpress + PTIPro	YES	YES
Know how much to pay your growers/vendors	YES		YES	
Know how much to bill your customers	YES		YES	
Automatically Generate Purchase Orders, Bills, Sales	Additional Fees			
Orders, and Invoices in QuickBooks ™©	Apply		NO	NO
Easy To Use Software	YES	PTIExpress + PTIPro	YES	YES
24 Hour Technical Support	YES	PTIExpress + PTIPro		YES
VoiceCode & RPC Support	YES	PTIExpress + PTIPro	YES	YES
				Annual renewal
Free software updates	YES	PTIExpress + PTIPro	YES	fee
Secure data storage	YES	PTIExpress + PTIPro	YES	YES
Sync GTIN lists and label templates with co-packers	YES	PTIPro	YES	
More than 100 GTIN's	YES	PTIPro	YES	YES
			Additional Fees	
Branded Response/Landing Page	YES	PTIPro	Apply	NO
Production Insights	YES	PTIPro		
		Additional Fees		
Print & Apply Automation Ready	YES	Apply	YES	YES
Implementation Consultion	Additional Fees	NO		Additional Fees



	Apply			Apply
Integration with buying organization systems	YES	PTIPro only	YES	
		Additional Fees	Additional Fees	
Item Level Traceability & Mobile End Customer Marketing	YES	Apply	Apply	NO
		\$4,000/site (must		
Computer/Hardware	Customer	buy from HM)	Customer	Customer
Printer	Customer	included above	Customer	\$4,850-PTI Light
		\$.003/lable (third		Purchase from
Labels	Customer	party)	Customer	RedLine
			included in annual	Included in
Software	\$995	included above	fee	annual fee
		\$1,500 PTI Express,	\$995+FoodLink	
Annual Fees	\$0	\$3,000 PTI Pro	Membership	\$500
		\$0 case level,		
Per Case or Label Fees	<=\$0.025	\$3.80/thous item	Label Only	No label fees



Four overarching criteria were central to the comparison and selection of the final vendor:

- 1. Compliance with the Produce Traceability Initiative (PTI)
- 2. Cost--up front and ongoing
- 3. Complexity of use and availability of product support
- 4. Multiple site integration capabilities

All four systems were determined to satisfy the first criteria. The second criteria immediately disqualified one vendor—Harvest Mark. This had been the system the Circle Fresh Proposal was originally constructed around. However, the high costs of installation at each site (\$4,000), the proprietary requirement of hardware, and the high annual renewal costs <u>for each site</u>, disqualified this vendor.

Of the three remaining vendors, only one other vendor was comparable in price (Foodlink), but its systems were not yet configured for multiple site integration. A final consideration that was significant in deciding on the system was the availability of on-site support. As the only vendor with a local presence, PTI Print was capable of providing on-site installation support as part of each of the farm deployments—all of this without an annual software fee.

The one downside to the PTI Print system was its per/label cost as part of maintaining all of the product information associated with each label. However, at only \$.025/label—and with the many added features such as automatic website landing and QR code integration and readability by smart devices, this was viewed as a good value.

III. Financial Analysis

A critical factor in determining the viability for integrating track and trace systems for small to medium scale produce greenhouse operations was the cost—both initial installation and setup and ongoing operations. Drawing on the actual operational experience gained after implementing the system at CFF's central packing facility, a series of cost factors were derived for:

- Initial installation costs
- Materials costs
- Labor costs
- Ongoing service or licensing fees.

These costs were compiled into a spreadsheet model that also enabled cost projection for different sizes of greenhouse operation. Three broad size categories were chosen for comparison based on common greenhouse sizes within the CFF network. These included 10,000 SF (approx. ¼ acre), 22,000 sq ft (approx. ½ acre), and 44,000 SF (approx. 1 acre). The results of this analysis are displayed in the table below. It indicates that costs range from \$.12/case for a small ¼ acre facility to as low as \$.07/case for a larger 1 acre facility. This would suggest that the cost of integrating a full-featured track and trace system make it financially viable for almost any scale of agricultural operation.

Financial Assessment of Track and Trace System Costs

Hardware	
Computer	\$500.00
Printer	\$300.00
Scanner	\$100.00
	\$900.00
Software	
One-time Set-up	\$995.00
	\$995.00
Setup Costs	
Prep and programming	\$200.00
Label layout	\$100.00
Setup support	\$300.00
	\$600.00
Total	\$2,495.00
Years to depreciate expense	\$7.00
Cost/yr for hardware	\$356.43
Cost/case	
@ 5,300 cases/yr	\$0.067
@ 10,500 cases/yr	\$0.034
@ 21,500 cases/yr	\$0.016
Ongoing/Material Costs	
Labels	\$0.02
QR Codes	\$0.02
Per case cost	\$0.04
Labor Costs	
# of seconds/hour	3600
Labor cost/hour	\$10
\$/second	\$0.00278
Second/label (config/print/apply	5
Labor cost @ 5 sec/label	\$0.01
Total Cost for System-Labor & Materials	
for 10,000 SF facility	\$0.12
for 20,000 SF facility	\$0.09
for 40,000 SF facility	\$0.07
Assumptions	
Facility Size and Case Production (tomato)	
Size	Yearly Cases
10,000 SF	5,300
20,000 SF	10,500
40,000 SF	21,500

IV. Implementation Steps

For producers interested in proceeding with the development and implementation of a Track and Trace system, the following represent the major steps and key information associated with each.

Step 1: Secure a GS1 Company Identifier Number

As the PTI Milestone's document outlines, obtaining a company identifier number is the first step in establishing a track and trace system. This number is unique to each company and provides the prefix to all product specific numbers that are integral to a product tracking program. To avoid confusion and guide a coherent tracking framework, PTI designated a specific company—GS1—to serve as the issuer of company tracking numbers for the entire food industry. GS1 is a standards organization that has over a hundred branches around the world.

US-based growers work through GS1 US to secure their company prefix. This can be obtained at <u>http://www.gs1us.org/get-started/i-need-a-gs1-company-prefix</u>. It typically takes less than a week to secure that company GS1 number after making contact with GS1. The cost of the GS1 number is based on the volume of sales anticipated on an annual basis and the number of codes being used. For companies with gross sales less than \$250,000 annually that needs up to 50 codes (one for each specific type of product), would have an initial fee of \$760 and an annual renewal fee of \$158. A company with revenues up to \$500,000 but using less than 1,000 codes would have an initial fee of \$1,575 and an annual renewal fee of \$500. A company with sales over a \$1M annually but using less than 1,000 codes would have an initial fee of \$3,000 and an annual renewal fee of \$500. GS1 provides a rate calculator that is included as an attachment to this document.

The image below shows a typical certificate that is issued from GS1 once a company identifier has been secured.

GS1 Compa	ny Prefix Certificate
Circ	ensed to: le Fresh Farms icensee")
Global Trade Item Number (6 Asset Identification: Global Individual Asse Additional Global Location Numb	mpany Prefix: 0854678004 use in creating: ITN) - Serial Shipping Container Code (SSCC) It dentifier (IGN) and Global Returnable Asset Identifier (GRAI) er (GLN) - Global Service Relation Number (GSRN) GLN: 0854678004002
When creating a U.P.C	2. bar code, use:
U.P.C. Company Pr	efix: 854678004
	Dennis W. Harrison Dennis W. Harrison, President GST US Barcodes and eCom TM
Expires on: 08/31/2013	Printed Date: 8/28/2012

Step 2: Create GTIN Numbers for Each Unique Product Offering

Once a GS1 number has been assigned, the next step is to create product identifier numbers that integrate the company ID secured above with a number specific to each unique product sold by the company. The most common of these identifier numbers is referred to as a GTIN number. GTIN stands for "Global Trade Item Number". The GS1 organization provides substantial guidance in the creation of GTIN numbers. The following shows the sequence of actions undertaken to complete this task.

- 1. Enter https://datadriver.prod.gs1us.org/ into your browser's address bar.
- 2. The GS1 Data Driver login window will appear:

User ID Password Password?	
Need access to Data Driver? Click <u>here</u> to upgrade to Partner Connections and get access to Data Driver today	<i>.</i>

3. Enter your GS1 USA username and password.

Username: ______ Password: ______

4. Choose your company and press the "Continue" button

mpany Prefix Selection		Select the Comp	any Prefix you v	vant to Use	
	U.P.C Company Prefix S54678004	0854678004	GTIN Capacity 100		% GTINs Remaining 70
ppyright € 2012 GS1 US, Inc.™	If you do not see your Con	npany Prefix, please conti	act customer servi	ce toll-free at +1 866.	.648.0507 for assistance.

5. Choose "Products" from the menu

Home Products Locations Admin Tools



6. A screen similar to below will load. Please click the "Enter a Product That Needs a Bar Code" button.

ote:	To avoid ha	ving two pro-	ducts with the same U.P.C. bar code, p	lease make sure all of your products are entered into Data Driver.	
ptio	nal Time	er: Ready	to input a product that is similar to one	e already in Data Driver? Simply select an existing product and click the "Clon	e" button.
Avail	able Optic				
-	or a Product	1 It Needs a	Bar Code Load Bar Code Numbers	(GTTNs) Already In Use Enter a Variable Measure Product Label Printing	Vendors New Product Worksheet
Enti	er a Product	1 It Reeds a	Bar Code Load Bar Code Numbers	(GTINS) Already In Use Enter a Variable Reasure Product Label Printing	Vendors New Product Worksheet
_					
		ret ttems			
Item	matching y	our titeria	30 of 30		
Edda	_		Product Identification Detail Sheet	Product Sales Sheet Print Bar Code	
Edd	Clone	Set there	Product Identification Detail Sheet	Product Sales Sheet Print Bar Code	
5	tatus	Typ	Product/Brand Name	Description	SKU
	omplete	Prod	CIRCLE FRESH FARMS	BEEFSTEAK 45-52 CNT ORGANIC	
	omplete	Produ	CIRCLE FRESH FARMS	ORANGE BEEFSTEAK 15LBS ORGANIC	
	omplete	Produc	CIRCLE FRESH FARMS	ORANGE BEEFSTEAK 45-52 CNT ORGANIC	
	omplete	Produc	CIRCLE FRESH FARMS	#2 BEEFSTEAK 15LBS ORGANIC	
	omplete	Product	CIRCLE FRESH FARMS	#2 TOV RED 13LBS ORGANIC	
	omplete	Product	CIRCLE FRESH FARMS	BASIL CONVENTIONAL 36 COUNT	301 BASIL CV
	omplete	Product	CIRLCE FRESH FARMS	BEEFSTAKE TOMATOES 15LB CONVENTIONAL	114 BEEFSTAKE CV
	omplete	Product	CIRCLE FRESH FARMS	HEIRLOOM TOMATOES 15LB CONVENTIONAL	115 HEIRLOOM CV
	omplete	Product	CIRCLE FRESH FARMS	ROMA TOMATOES 15LB CONVENTIONAL	116 ROMA CV
	omplete	Product	CIRCLE FRESH FARMS	TOV RED TOMATOES 13LB CONVENTIONAL	117 TOV CV
	omplete	Product	IRCLE FRESH FARMS	TOV RED TOMATOES 11LB ORGANIC	9101 TOV OG
	omplete	Product	RCLE FRESH FARMS	#2 TOV RED TOMATOES 11LB ORGANIC	9102 #2 TOV OG 11LB
00	omplete	Product	RCLE FRESH FARMS	BEEFSTAKE TOMATOES 15LB ORGANIC	9103 BEEFSTAKE OG
	omplete	Product	C CLE FRESH FARMS	HEIRLOOM TOMATOES 15LB ORGANIC	9104 HEIRLOOM OG
0 0	omplete	Product	C. CLE FRESH FARMS	ROMA TOMATOES 15LB ORGANIC	9105 HEIRLOOM OG
OC	omplete	Product	CI. CLE FRESH FARMS	ZEBRA PLUM ORGANIC 12COUNT / 1 PINT	9106 ZEBRA-OG PKG
0 0	omplete	Product	CIR LE FRESH FARMS	GREEN TOMATOES ORGANIC 15LB	9107 GREEN TOMATOE OG
0 0	omplete	Product	CIR E FRESH FARMS	TOMATO TOTS - MINI SAN MARZANO OG 1PINT/12 COUNT	9108 MINI AN MARZANO RC
0 0	omplete	Product	CIRC E FRESH FARMS	INDIGO ROSE TOMATOES 11LB ORGANIC	9111 INDIGO ROSE BULK-O
00	omplete	Product	CIRCE FRESH FARMS	BOULDER MINI-SWEETS 9COUNT / 1LB	9109 BOULDER MINI-SWEET
00	omplete	Product	CIRCLE FRESH FARMS	MINI-CUCUMBER 12COUNT ORGANIC	9432 MINI CUC PKG-OG
00	omplete	Product	CIRCLE FRESH FARMS	MINI-CUCUMBERS 20LB BULK ORGANIC	9431 MINI-CUKE BULK - OG
0 0	omplete	Product	CIRCLE FRESH FARMS	ENGLISH CUCUMBER 9 EACH ORGANIC	9433 ENG CUC PKG-OG
0 0	omplete	Product	CIRCLE FRESH FARMS	INDIGO ROSE-OG TOMATOE 12COUNT / 1PINT	9110 INDIGO ROSE PKG - 0
0 0	omplete	Product	CIRCLE FRESH FARMS	GREEN BIBB LETTUCE 12 COUNT CONVENTIONAL	201 GBL CV PKG
00	omplete	Product	CIRCLE FRESH FARMS	RED BIBB LETTUCE 12 COUNT CONVENTIONAL	202 RBL CV PKG
OC	omplete	Product	CIRCLE FRESH FARMS	OAK LEAF LETTUCE 12 COUNT CONVENTIONAL	203 OAK CV PKG
00	omplete	Product	CIRCLE FRESH FARMS	MIXED GREENS 12 COUNT BULK CONVENTIONAL	206 MG CV BULK
0 0	omplete	Product	CIRCLE FRESH FARMS	GREEN BIBB LETTUCE 12 COUNT BULK CONVENTIONAL	204 GBL CV BULK
	omplete	Product	CIRCLE FRESH FARMS	RED BIBB LETTUCE 12 COUNT BULK CONVENTIONAL	205 RBL CV BULK

7. Choose the "Each/Individual Unit (Retail) option when the Packaging Level step is asked.

	each level requires a specific type of bar code. Choose the option below that best describes your packaging for your product: means you must define the lowest level (each/individual unit) first before proceeding to a higher level. we the packaging level you want to bar code.
1 inner pack = 12 widgets	 Pallet (Shipping - can be Mixed Module): A packaging level that can contain within it cases, inner packs, or each/individual units. Used for shipping only, never sold at the point-of-sale (POS) (ex. 20 cases of widgets). Case - Not Sold at Retail (Shipping - can be Display Shipper): This is the standard shipping level. Can contain within it inner packs and/or each/individual units. (ex. 12 inner packs of widgets.) Inner Pack: A packaging level that is not sold at the point- of-sale. Can only contain each/individual units (ex. a sleeve or poly bag, etc of 12 widgets) Each/Individual Unit (Retail): The lowest level of item packaging. These units are almost always sold at the point-of-sale. This typically is the product by itself. (ex. a widget)

Press the "Next" button to continue.

8. The Product Packaging step loads. Most times you will use the Packaging Type of "Boxed." But if you believe another packaging type is a better fit, feel free to choose it.

Ignore, or leave the Bar Code Dimensions at its default.

Home Products			
Product	NEW PRODUCT: Product Packaging The purpose of this page is to show you where to place the bar code on your product and select the appropriately sized bar coo	de label. Bar code labels are placed where they can best be scenned at the point-of-sale as shown by the	se general example nictures.
Packaging Heasurement Defail	The purpose of the page is to show their to part with the code on your product and sends in explosion marking guideline. Note: If you product category is non of the following, click on approximate likelow for Specific industry marking guideline <u>Produce</u> <u>Horal</u> <u>Food sense</u> <u>Healthcare</u> <u>Meatingatry Variable measure.temp</u>		an general example provides.
Category	Product and Packaging Types	Bar Code Dimensions	
Summary	Bag Data Large Heavy or Bulky Items	Area to allow for your bar code (inches)	
Specification	Bin Multi Packs	U.P.C. Smallest	Width X Height 1.175 X 0.817
	Bottles and Jars Boxed Teg (Apparel)	(D) Small	1.322 X 0.919
	Can and Cylinder Thin Items or Containers	Recommended Large	1.469 × 1.021 2.204 × 1.531
	Carded Items Trav	C Largest	2.938 × 2.042
	Equication Dubs Unpeckaged Rem		
	© Vial		
	Example		
	Back Front		
	TRANSFERS		
	CRACKERS		
	Preferred Placement Undesirable Alternative		

Press the "Next" button to continue.

9. The NEW PRODUCT: Product Measurement Details step loads. Answer the Brand Name, Primary Product Description, and the measurements and weight of the new item. For the "Internal Part Number or SKU (Optional)" field, enter in your product identification number found in your accounting system, if applicable.

ts	Locations	Admin Tools							
	NEW PRODUCT: Product Measurement Details * Denotes a mandatory field								
	CRAC	KERS	Back Front Neopend 						
	Product Identific	ation							
	Brand Name *		CIRCLE FRESH FARMS						
	Primary Product Description *		TOV RED CONVENTIONAL						
	Internal Part Nu	mber or SKU (Optiona	I) 110						
	Product Dimensi	ons							
	Please enter exa	ct dimensions for you	r product						
	Measurement Ur	nit * Inches 💌	Depth * 1 Height * 1						
	Note: For guidance on the GS1 Standard method for product measurements, please review the GDSN Package Measurement Guidelines.								
	Product Weights								
	Measurement Ur	nit * Ounces 💌 G	Bross Weight * 14 Net Weight * 13						
1.1.9	5. Inc. ¹⁹								

10. The NEW PRODUCT: Category Information step loads. Choose a department, usually "FRESH PRODUCE", a Category, and then a Sub Category and Press the Submit button.



11. When the NEW PRODUCT: Product Summary screen loads confirm your information and press "Next".

ts	Locations Admin Tool	5
	NEW PRODUCT: Product	Summary
	GTIN:	00854678004309
	Product Bar Code Number:	854678004309
	Product Bar Code Type:	UPC-A
	Product/Packaging:	Boxed
	Brand Name:	CIRCLE FRESH FARMS
	Primary Product Description:	TOV RED CONVENTIONAL
	SKU/Internal Part Number:	110
	Product Depth:	1 (Inches)
	Product Width:	1 (Inches)
	Product Height:	1 (Inches)
	Product Gross Weight:	14 (Ounces)
	Product Net Weight:	13 (Ounces)
	Category:	13.0286.4281 FRUITING VEGETABLES - LOOSE (FRESH)
	Print Summary	

12. The NEW PRODUCT: Product Identification Detail Sheet is a great screen to print for your records. Please not the GTIN number listed for your product, because it will be used by the LeafTrack system.

DIT PRODUCT: Product Identifie	cation Detail Sheet	
U.P.C. Company Prefix:	854678004	
GTIN:	00854678004309	
Product Bar Code Number:	854678004309	
SKU/Internal Part Number:	110	
Product Line/Brand:	CIRCLE FRESH FARMS	
Product Description:	TOV RED CONVENTIONAL	
Required Symbology:	UPC-A	
Minimum Size of Label:		
Width:	1.719	
Height:	1.271	
Bar Code Dimensions:	W 1.469 x H 1.021 (100%)	
Minimum Quality Specs:	1.5/06/670	

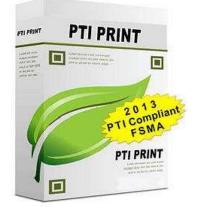
Press the Finish button, and repeat the process for each product you would like entered into GS1's database.

Step 3: Select a Track and Trace Vendor

The remainder of the key decisions related to system design and deployment will depend on the specific architecture of the track and trace vendor selected. There are substantial differences in both hardware and software systems that have substantial implications for both upfront costs, ongoing maintenance costs, and the organization and function of the track and trace operations station. The preceding sections have provided the analysis Circle Fresh conducted on the vendors available at the time it implemented this project. Based on this analysis, Circle Fresh Farms chose PTI Print as its vendor. The remaining section of this Grower Handbook provides the implementation handbook for the PTI Print system as it was configured for the Circle Fresh Farms network. A step-by-step video guide is also available at the special facebook page set up to provide support and assistance to producers interested in developing a track and trace system. Please see:

https://www.facebook.com/pages/Circle-Fresh-Farms-Small-Farms-Track-and-Trace-Pilot/519575298095051

V. PTI Print Track and Trace Program Start-up Guide



PTIPRINT Printing User Guide

PTIPRINT

Circle Fresh Farms – Grower's Track and Trace Handbook

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PTIPRINT C

Overview

After you login into your PTIPRINT system you will see the main printing screen. It is broken up into a few sections.



Menu

As you hover over your menu options a drop down may appear with additional options. The menu shows you all the different options you have available with your system. Often times this includes the ability to create labels, delete labels, ship, receive, and generate reports.

Printing Options

A label is made up of many different parts and they are controlled with the printing options. As **y**ou change the printing options it updates the label preview. Please continue reading to find out more about what each printing option does for your labels.

Print Button

Once y u've chosen all of y ur printing options, press the P int button to generate and print your labels. By clicking print, you are generating your product specific traceability labels, entering the items into inventory, and using PTIPRINT LiveQR codes. Before pressing Print, you should make sure that the label preview looks like what you want your labels to look like. The product should match what you are packaging, and the lot number, date, and grower should match too.

Label Preview

The label preview shows you what your labels will look like when you print them. It changes whenever you change a printing option that affects the label. <u>Before pressing Print; make sure that the label preview looks like what you want your labels to look like.</u> The image on the screen should match what you are packaging including; lot number, date, and grower information.

PTIPRINT



Label Overview

Your PTIPRINT application has v rious label formats, and we'll illustrate the most common labels and layout.



The standard carton label, contains all the information required by the Product Traceability Initiative, in addition, it provides mobile marketing to your consumers because they can scan the QR code with their mobile device and find out information about the product including food safety, traceability, and recall status.

Pallet Labels (3 Total)

SSCC (Serial Shipping Container Code)



The SSCC or Serial Shipping Container Code, is a barcode placed on every pallet, mandated under the Product Tracability Initiative, and it is generated automatically when you are printing with pallet labels. The SSCC is included on Advanced Ship Notification documents.

PTIPRINT

Pallet Tracking



The Pallet Tracking label is used during transfers, like shipping, receiving, and delivery to the end customer.

Hybrid Pallet Label



The Hybrid Pallet Label, is also mandated by the Produce Traceability Initiative, and includes the information about the pallets contents. It says how many cartons, what the cartons contain, and where they're going. It also contains a L veQR code that can be scanned by the end customer to find traceability and food safety information.

Need help or have a question?

PTIPRINT Support

support@PTIPRINT.com

(303) 862-3000

PTIPRINT

Printing Labels

Once setup, printing labels can be as easy **es** updating which product y u're packing, and how many **b**abels y u need, then pressing print. Below is an illustrated guide to printing labels.

Step-by-Step to Print Labels

1. Login to PTIPRINT, or press the labeling option on the menu.



2. Check your lot number is set correctly. Feel free to update it to what you need. This field populates based upon the lot options you choose in your settings.

Product:		Weight:	Pounds O
TOMATO BEEFSTEAK RED 9 CO	O DEFAULT		
Source:		Carton Labels To Print:	
Farm 1	O DEFAULT	50 👔 🔘	DEFANILT
Destination:		Cartons Per Pallet	
WHOLE FOODS DC	O DEFAULT		DEFAULT
Print Date? Lot Numb	er;		
Yes	05006130206		
	Pri	nt 🗸	
		78041041000000010000	
		CT OF USA 0205/2013	

PTIPRINT

3. Set the product option, to the product you are packaging.

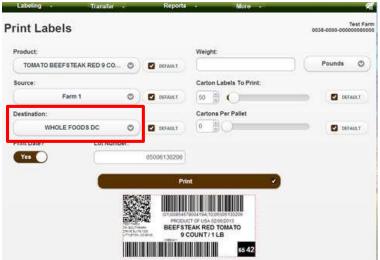
TOMATO BEEF STEAK RED 9 C	0 0	DEFAULT	Weight:	Pounds ©
Farm 1 Destination: WHOLE FOODS DC	0	DEFAULT	Carton Labels To Print:	
Primt Date? Lot No	umber:	05006130208		
	1 790	Prie	* 🗸	

4. Set the source, to the originating grower/producer/manufacturer of the product.

TOMATO BEEFSTEAK RED 9	co ©	DEFAULT	Weight:	Pounds	0
Source: Farm 1	0	DEFAULT	Carton Labels To Print:	🖸 DE	FAULT
WHOLE FOODS DC	0	DERAULT	Cartons Per Pallet	Der Der	AULT
Primt Date? Lot	Number;	050061.30206			
•	PRO	Prir			
			8004194(10)05006130206 11 OF USA 02062013		

PTIPRINT

5. Set the destination to the end customer for all the labels you're printing. Sometimes, this is simply set to y ur cooler.



Need help or have a question?

PTIPRINT Support support@PTIPRINT.com (303) 862-3000

PTIPRINT

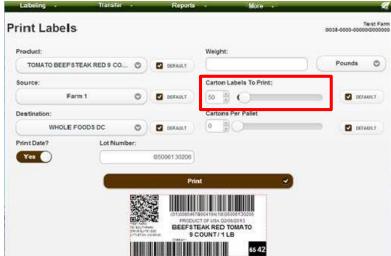
Circle Fresh Farms - Grower's Track and Trace Handbook

6. If y u're printing pallet labels, v rify the Cartons Per Pallet value is set to the number of boxes you put on a pallet.



For example, 20 boxes fit on a pallet. In order to do this, set the Cartons per Pallet value to 20. If you choose to print 25 cartons, the system will automatically print a set of pallet labels after the 20th carton label, and then another set for the last 5 cartons. Printing less than the number of cartons that fit on a pallet, will still print pallet labels after the last carton label is printed.

Setting the Cartons Per Pallet value to 0 (zero), means the system will not print pallet labels for that print job.



7. Set the number of carton labels to print.

PTIPRINT

8. Verify the preview matches what you would like to print.

Product: TOMATO BEEFSTEAK RED 9 CO © DEFAUXT Source: Farm 1 © DEFAUXT Destination: WHOLE FOODS DC © DEFAUXT Cators Per Palet WHOLE FOODS DC © DEFAUXT Frint Labels Product: TOMATO BEEFSTEAK RED 9 CO © DEFAUXT Product: TOMATO BEEFSTEAK RED 9 CO © DEFAUXT Source: Farm 1 © DEFAUXT Cators Per Palet DESTINATION: TOMATO BEEFSTEAK RED 9 CO © DEFAUXT Source: Farm 1 © DEFAUXT Source: Farm 1 © DEFAUXT Source: Farm 1 © DEFAUXT Cators Per Palet DEFAUXT Cators Per Palet DEFAUXT Cators Per Palet DEFESTEAK RED 9 CO © DEFAUXT Source: Farm 1 © DEFAUXT Cators Per Palet DEFAUXT DEFAUXT DEFAUXT Cators Per Palet DEFAUXT DEFAUXT Cators Per Palet DEFAUXT D					
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Libbeing Transfer Reports More rint Labels Product: TOMATO BEEF STEAK RED 9 CO © DEFAULT Source: Farm 1 © DEFAULT Destination: Carton Labels To Print: Print Date? Lot Number: Yes 000001 302006 Print Carton Labels To Print: Carton Labels To Pr		10000	HALLOWER, CALOR AND LODAL IS	LUC AND LODD FRANK	
Print Labels Test Same source TOMATO BEEF STEAK RED 9 CO © DEFAULT Weight: TOMATO BEEF STEAK RED 9 CO © DEFAULT Pounds © Source: Carton Labels To Print: Farm 1 © DEFAULT Destination: Cartons Per Pailet WHOLE FOODS DC © DEFAULT Print Date? Lot Number: Yes @Source intervention Description of the paint of the	ress the Print bu	utton.			
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PRODUCT OF USA 02/05/2013	Product: TOMATO BEEFSTE Source: Estination: WHOLE FOR Print Date?	AK RED 9 CO © 1 © 0DS DC ©	DEFAULT DEFAULT DEFAULT	Weight: Carton Labels To Print: 50 0 0 Cartons Per Pallet 0 0 0	Pounds O
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65 42	Product: TOMATO BEEFSTE Source: Estination: WHOLE FOO Print Date?	AK RED 9 CO © 1 © 0DS DC ©	C DEFAULT	Weight: Carton Labels To Print: 50 0 0 Cartons Per Pallet 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pounds O

Your labels will start printing automatically after they are generated. The more labels you print the longer it will take to generate and print the labels.

PTIPRINT

Deleting Labels

Sometimes you print labels you don't need. You can delete the labels by following the directions below. Otherwise, using your reporting options you can view the cartons in the system and remove them by clicking the corresponding delete link.

To remove labels by scanning:

1. Under the Labeling option in the menu, click the Delete Labels option.

Labeling -	
Print Labels	
Delete Labels	

2. Scan each label you would like to delete with a barcode scanner attached to your print station. If y u don't have a barcode scanner you can type the 8 letters and numbers above or below a tracking barcode.

Labeling -
Remove Label
Please scan tracking barcode or L
Use scanner to enter code
Carton ID
Carton ID

3. After each scan, the information from that carton is shown below the scanning area. **Remove Label**

eport Type:					
lease scan tracking barco	de or LiveQR code;				
190AA94F					
Carton ID	Product	Lot#	Producer	Pack Date	Customer

4. Once you have scanned all your labels confirm that the list shown matches the labels you would like to remove.

PTIPRINT

5. Press the Remove Label button.

Remove Label

6. A popup will alert you to how many cartons were removed, and if any errors occurred.

Setting Defaults

2.

Sometimes a print station is always using the same printing option over, and over again. We have added default options for each of the printing options. When you check the Default checkbox, next to a printing option it will always default to that option each time your PTIPRINT software loads.

Step-by-Step Setting the Default for a Printing Option

1. Set the printing option value to whatever you would like the default to be. This example illustrates setting a default product. The process is the same for setting a default grower, destination, carton labels to print, and cartons per pallet.

Product:	
TOMATO TOV RED CONVENTION	DEFAULT
Check, the Default Checkbox	
Product:	
TOMATO TOV RED CONVENTION	DEFAULT

Printing Label's Without Packaging Date

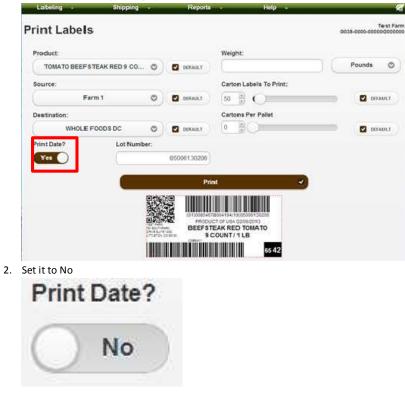
By default your PTIPRINT application will print the packaging date on your label, and this will be the date the label is printed. You can print labels with the packaging date turned off by toggling the print date printing option. The Produce Traceability Initiative mandates that the packaging/harvest date should be in a human readable format or encoded in the lot number.





Step-by-Step to Print Labels without the Packaging/Harvest Date

1. Find the Print Date printing option



Need help or have a question?

PTIPRINT Support

support@PTIPRINT.com

(303) 862-3000

PTIPRINT

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Reprinting Labels

Sometimes printers run out of labels and get jammed, or maybe the labels got misplaced or trashed accidently. This means you may need to reprint labels that were already generated. Labels can only be reprinted from the computer that originally printed the labels. Login to PTIPRINT on the computer that originally printed the labels, scroll to the bottom of the Print Labels screen, find the print job you want to reprint and click the reprint link. Step-by-step directions are illustrated below.

Step-by-Step to Re-Print Labels

- 1. Login to PTIPRINT or press the Labeling link in the menu.
- 2. Scroll down the page to the Last Print Jobs section.

ast Print Jobs:						
Source	Product	Quantity	Date/Time	Actions		
		10	1000-100-100 million	REPRINT REMOVE		

3. Find the print job you would like to reprint and press its corresponding Reprint link. The labels will be generated again and sent to your printer.

ast Print Jobs:					
Source	Product	Quantity	Date/Time	A	ins
	Minut Annual Contraction	10	2000-45-21 million	REPRINT	REMOVE

Making & Editing Orders

To make a new order, hover over the More menu option, then hover over Orders, and Click Manage Orders. A list of current orders in the system is displayed. Click the Add Order button to make a new order, or click the Pencil icon next to the order you would like to edit. Fill in the order options, and press the Create New Order button if making a new order, or if editing press the button is named Save Order. After you have created your order you are able to print a Pick List for employees to fill the order. You or employees filling orders are able to print the order's invoice after it has been filled.

When making orders the text entered into the Order Notes section is displayed on the Pick List for employees. If the order is for \$0.00 the notes are displayed on reporting to source farms, and the order notes are displayed on all reports designed for your accounting department.

The Closed option is filled in automatically when employees mark an order complete. You can also manually close an order by typing in a date and time in this box. Orders aren't considered closed until this option is filled in, and the order isn't converted into an invoice for import into Quickbooks unless this option is filled in as well.

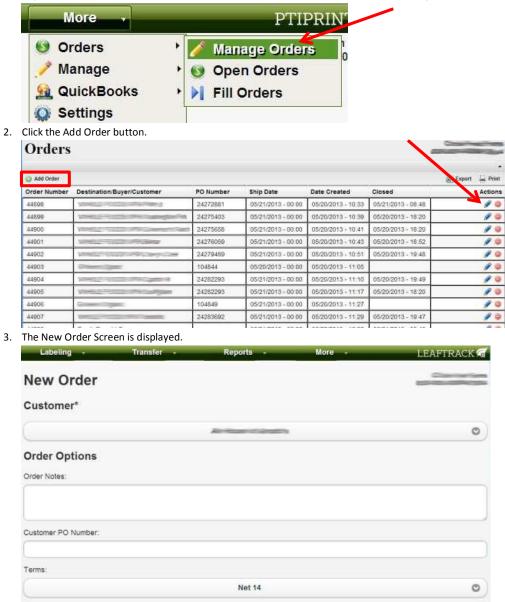
Entering items for the order can be done by typing the items SKU or name and choosing it from the displayed list. Enter the quantity of the item for the order and press enter or the Add to Order button. The quantity available in inventory is then displayed and the price charged to the customer can be adjusted.

Step-by-step illustrated directions on creating and editing orders are below.

PTIPRINT

Step-by-Step Guide to Making & Editing Orders

1. Login to PTIPRINT and hover over More in the Main Menu. Hover over Orders and Manage Orders.



- 4. Choose the customer for the order.
- 5. Enter any **O**rder notes, the customer's P N mber, the terms for the order, the delivery method, and the date the order should be shipped.





- 6. Only enter a date in the Closed field if the order is completed. If an employee has forgotten to finish the order you can manually enter the closing date in this field.
- 7. In the search for products field, enter the SKU, or product name and choose it from the drop down list. Then enter the quantity you would like on the order. Press the enter key to add it to the order, or press the Add To Order button.

Search for product to place on the order, you can use the product name, family, or product number.

 Oty:

 Add To Order

- 8. Once all the products for the order have been entered press the Create New Order or Save Order button.
- 9. The order is than saved and your order number is displayed. In addition, you are then able to print the Pick List and Invoice.

arto	ons Scann	ed Out For C	Drder
Qty	Product No.		Product Description
15 3			
			Save Order
	····· 🖌	· · · · · · · · · · · · · · · · · · ·	
Back to	List Pick List	Invoice	

Filling Orders & Shipping Product

By filling an order it is also shipping the product you filled the order with to that customer. To fill an order, hover over Transfer on the Main Menu and choose the Ship option. The orders that need to be shipped are displayed. Clicking the arrow takes opens the order and allows you to scan the boxes for the order. From that screen you can finish and close the order and print the order's invoice. Below is a step-by-step illustrated guide on how to fill an order.

Step-by-Step to Fill An Order

1. Login to PTIPRINT and hover over Transfer and click Ship.



PTIPRINT

2. Find the order in the list and press the Fill Order Icon.

			👔 Export 🚊 Print
Order Number	Customer	Ship Date	Action
44894	Digga Roots LLC	05/18/2013 - 00:00	NORA
44895	Digga Roots LLC	05/19/2013 - 00:00	NORS
44903	Growers Organic	05/20/2013 - 00:00	NOH
44906	Growers Organic	05/21/2013 - 00:00	N @ 🖶 🌶
44909	Source Local Poods LLC	05/21/2013 - 00:00	NOS
44910	Door to Door Organics	05/24/2013 - 00:00	NORS
44911	Highland Tap and Burger	05/21/2013 - 00:00	NOF
44914	Growers Organic	05/21/2013 - 00:00	NOSS
44915	Circle Fresh - Repack	05/21/2013 - 00:00	NOSS

3. Scan the LiveQR or Tracking Barcode on each box y u're using to fill the order. It is added to the list of items on the order.

an the LiveQR or Tracking codes on each carton or pallet.	
te following cartons have been found:	
acking #[Patlet #[Product[Lot #]Pack Date[Source]Current Location]]	
ess the Deliver button to finish the shipment.	

Deliver

5. Then if the order is complete press the Close Order link, and if necessary click the Print Invoice link to generate the invoice for printing.



Receiving Products

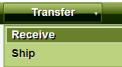
4.

If you are receiving product from another business that uses PTIPRINT you can use the same labels that were originally placed on the box, they just need to be received into your system. To receive a carton, hover over Transfer in the Main Menu and click the Receive link. Then choose the location you would like to receive the carton(s) into, and scan each carton that you want to receive. Below are step-by-step directions to receive products into your system.

PTIPRINT

Step-by-Step to Receive Products

1. Login to PTIPRINT and hover over Transfer in the Main Menu. Then click on Receive.



2. Choose the location from the list where you want to receive the products.

Receive
Choose destination:
Scan the LiveQR or Tracking codes on each carton or pallet.
The following cartons have been found:
Tracking # Pallet # Product Lot # Pack Date Source Current Location Please scan a carton or pallet.
Receive
Scan each item.
Scan the LiveQR or Tracking codes on each carton or pallet.
The following cartons have been found:
Tracking # Pallet # Product Lot # Pack Date Source Current Location Please scan a carton or pallet
Click the Receive button to finally receive and save the items.
Receive

Mobile Usage

All functions of PTIPRINT work on tablets and mobile devices that run the Google Chrome Browser. Printing labels from iOS devices may require additional hardware to make your printer compatible on the iOS Operating System. Reporting and other functions are easier to read and use on tablets and computers rather than your mobile phone because of the size of the screen. The scanning of labels requires additional hardware, namely a Bluetooth barcode scanner that is compatible with your device. Contact PTIPRINT support for more information.

Reports

The reports section of the menu contains all the reports for your organization. Reports always include the ability to trace-back and trace-forward cases, lots, products, products from sources, and products sent to destinations. If you do not have a desired report, or need help with any of the reports please contact PTIPRINT Support at (303) 862-3000.



Produce Traceability Initiative Milestones & Compliance

Your PTIPRINT system allows you to be compliant with the requirements and milestones outlined in the Produce Traceability Initiative (PTI) (<u>http://www.producetraceability.org/</u>). PTI specifies the following seven milestones, and PTIPRINT complies with all seven, the compliance information is outlined below.

	Milestone Description	PTI Print Milestone Compliance
Milestone 1	Obtain GS1 USA Company Prefix	Performed during setup
Milestone 2	Assign GS1 USA GTIN numbers to all products	Performed during setup
Milestone 3	Provide GTIN Numbers to Buyers	Product GTIN Report
Milestone 4	Show Human Readable Information On Cases	Included on PTIPRINT Label
Milestone 5	Encode information in barcode	Included on GS1-128 barcode on label
Milestone 6	Read and store information inbound cases	Captured during label creation and during Receiving
Milestone 7	Read and store information on outbound cases	Captured during shipping and filling orders

Apple and iOS are trademarks of Apple Inc.

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GS1 is trademarked in the USA by GS1 USA Inc.

Quickbooks is trademarked by Intuit Inc.

The Produce Traceability Initiative (PTI) is a set of specifications agreed upon by CPMA, GS1 US, PMA, and United Fresh and all their names are trademarked to their respective companies.

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Original Draft Date: January 19, 2013 Last Updated: May 21, 2013

Need help or have a question?

PTIPRINT Support

support@PTIPRINT.com

(303) 862-3000

PTIPRINT



Attachment 1 - PTI Pricing Document



FO

R: Sample farm-PTI print customer Farm representative Address of facility or business office Address of facility or business office

Overview: Defined hardware location Example of an initial estimate for LeafTrack® Print Stations installed in one physical location.

> The following is an outline and estimate for potential product and services to be provided by LeafTrack LLC.

THIS IS AN ESTIMATE ONLY AND DOES NOT REPRESENT A CONTRACT FOR PRODUCTS OR SERVICES.

					Uni		Subtot
ems	s / C	components / Systems		Cost / Fee	t	Quantity	
1	PR	ODUCTS	*2, 3				
	a b	PTI Print Software (per Grower/EIN/Source) Production Management Application - (per Device License)		\$995.00	ea	0	\$-
		i Qty: 1 to 2 Device Licenses		\$65.00	ea/mo	0	\$-
		ii Qty: 3 to 14 Device Licenses		\$45.00	ea/mo	0	\$-
		ii Qty: 15 or more Device Licenses		\$25.00	ea/mo	0	\$-
	с	POS Software (per license)		TBD		na	
-	d	LiveQR Codes (PRE-PAID ONLY) paid prior to delivery, per order					
		See Page 2 for Detail of ordered / estimated Pre-Paid Codes Pre-Paid Codes Ordered / Estimated	(notes here)			-	\$-
	е	LiveQR Codes (30 NET MONTHLY BILLING) per order					
		See Page 2 for details of ordered / estimated 30 NET Billing Codes	<i>.</i> .				
		30 NET Billing Codes Ordered / Estimated	(notes here)			-	\$-
	SE	RVICES (Consulting, Design and Integration)	*1, 4, 5				-
	а	Customer Assessment (Initial Only - 1hr)		incl		0	nc
	b	Follow-Up Meetings and Design Analysis Prep and Pre-Install programming of PTI multi-station	TBD	\$100.00	hr	0	\$-
	с	platform only Set-Up & Support (platform programming & hardware		\$100.00	hr	0	\$-
	d	config)		\$100.00	hr	0	\$-
	e	Follow Up Support (platform programming & hardware config)		\$100.00	hr	0	\$-
	f	General and Customer Service Support (telephone, email)		nc	hr	0	\$-
	g	Prep and Pre-Install programming of PTI multi-station platform only		\$100.00	hr	0	\$-

Customer Order Date: Prepared by: Agent:

Circle Fresh Farms - Grower's Track and Trace Handbook

	Label layout and semi-custom design (4" x 2" or 11" x h 2" size only)		\$100.00	hr	0	\$-	
	Prep and Pre-Install programming of PTI multi-station		Ŷ100.00		0	Ļ	
	i platform only		\$100.00	hr	0	\$-	
3	EQUIPMENT						
	a Computer - Desktop Computer System (w/ 19" mon)	TBD	\$800.00	ea	0	\$-	
	b Scanner - Desktop Wired QR Scanner	TBD	\$700.00	ea	0	\$-	
	c Scanner - Wireless barcode Scanner	TBD	\$540.00	ea	0	\$-	
	d Printer	TBD	TBD	ea	0	\$-	
	e						
	Other Equipment	TBD	TBD	еа	0	\$-	
4	ADMINISTRATIVE REQUIREMENTS	*6					
	a Travel Expenses		TBD	ea	0	\$-	
	b Shipping and Delivery		TBD	ea	0	\$-	
	c Other Requirements		TBD	ea	0	\$-	
					SUBTOTAL		\$-
5	OTHER						
	a DEPOSITS / PAYMENTS:		\$-	ea	0	\$-	
	b Changes, Additions and Adjustment		\$-	ea	NA	\$-	
	Taxes - Applicable Sales and Transaction (State, County a	nd					
	c Federal)		TBD	ea	TBD	\$-	
stim	ate does not include any taxes or fees that are assessed by city, county,	state and feder	al (to be applied a	t invoice).	TOTAL		\$-
	Name: Farm representative Title:		Defined hard	ware locatior	1		
	Date:						
' Not	es:						
1	Initial meeting and concept discussions of customer requirements, limi	ted to one (1) ho	ur at no charge.				
2	Initial scheduled set-up of system only, does not include delays, resched requirements.		-				
3	Unless directly stated in customer order or contract, customer is solely	repsonsible to o	btain and provide	all fully function	nal equipment, systems	and utiliti	es.
4	QR code price is per code per transaction, and discount pricing only app		r code purchases (ely responsible for all un	used code	es).
	Customer is repsonsible for all travel, lodging and mileage expenses for location(s).						
E		r any support tra	vel to/from custor	ner			
5 6		r any support tra	vel to/from custor	ner			
5 6	Order Payment Terms: a All orders require contract services agreement, licensing agreem	ent and may rea	quire a credit or cl		uthorization.		
	Order Payment Terms:	ent and may rea	quire a credit or cl		uthorization.		
	Order Payment Terms: a All orders require contract services agreement, licensing agreem Hardware and Software: Due and payable on order placement, o	ent and may re r NET 30 days wi	quire a credit or cl		uthorization.		
	Order Payment Terms: a All orders require contract services agreement, licensing agreement, or Hardware and Software: Due and payable on order placement, or b credit. QR Codes: Due and payable upon order placement. All code order c refundable. Installation Services: Due and payable on order, NET 30 days with	ent and may re r NET 30 days wi rs are non-	quire a credit or cl		uthorization.		
	Order Payment Terms: a All orders require contract services agreement, licensing agreement, licensing agreement, or the services. Due and payable on order placement, or the services. Due and payable upon order placement. All code order or cefundable. Installation Services: Due and payable on order, NET 30 days with the credit. Consultation, Services or Additional Support: Due and payable and pay	eent and may re r NET 30 days wi rs are non- n approved	quire a credit or c th approved	redit card prea	uthorization.		
	Order Payment Terms: a All orders require contract services agreement, licensing agreement, licensing agreement, or be credit. QR Codes: Due and payable upon order placement. All code order crefundable. Installation Services: Due and payable on order, NET 30 days with credit. Consultation, Services or Additional Support: Due and payable and credit. e credit.	e ent and may re r NET 30 days wi rs are non- n approved s service date, or	quire a credit or c th approved NET 30 days with	redit card preat			
	Order Payment Terms: a All orders require contract services agreement, licensing agreement, licensing agreement, or because and Software: Due and payable on order placement, or because and payable upon order placement. All code order credit. QR Codes: Due and payable upon order placement. All code order credit. Installation Services: Due and payable on order, NET 30 days with credit. Consultation, Services or Additional Support: Due and payable and credit. f Travel Expenses: May require deposit or prepayment, and are due	eent and may rea r NET 30 days wa rs are non- a approved t service date, or e and payable or	quire a credit or c th approved NET 30 days with travel dates, or N	redit card preat approved IET 30 days with	n approved credit.	d credit	
	Order Payment Terms: a All orders require contract services agreement, licensing agreement, licensing agreement, or become the services. Due and payable on order placement, or become the services. Due and payable on order placement. All code ordereregundable. QR Codes: Due and payable upon order placement. All code ordereregundable. Installation Services: Due and payable on order, NET 30 days with deredit. Consultation, Services or Additional Support: Due and payable and eredit. f Travel Expenses: May require deposit or prepayment, and are due generation. g Taxes, Freight and Other Costs: May require deposit or prepayment.	eent and may rea r NET 30 days wa rs are non- a approved t service date, or e and payable or ent, and are due	quire a credit or c th approved NET 30 days with travel dates, or N and payable on tra	redit card preat approved IET 30 days with avel dates, or N	n approved credit. ET 30 days with approve		dit.
	Order Payment Terms: a All orders require contract services agreement, licensing agreement, licensing agreement, or because and Software: Due and payable on order placement, or because and payable upon order placement. All code order credit. QR Codes: Due and payable upon order placement. All code order credit. Installation Services: Due and payable on order, NET 30 days with credit. Consultation, Services or Additional Support: Due and payable and credit. f Travel Expenses: May require deposit or prepayment, and are due	eent and may rea r NET 30 days wa rs are non- a approved t service date, or e and payable or ent, and are due uire deposit or pi	quire a credit or co th approved NET 30 days with travel dates, or N and payable on tra repayment on or b	approved IET 30 days with avel dates, or N efore delivery, o	n approved credit. ET 30 days with approve or NET 30 days with app		dit.

	eQR Codes (30 NET MONTHLY BILLING) per order and insaction.				
i	Minimum QR Code order is quantity of 5,000 per order				
ii	Qty: 5000 to 250,000 QR Codes per order	\$0.035	еа	-	\$-
iii	Qty: Over 250,000 QR Codes per order	\$0.0275	еа	-	\$-
iv	Qty: Over 500,000 QR Codes per order	\$0.02	ea	-	\$-
v	Qty: Over 750,000 QR Codes per order	\$0.0175	ea	-	\$-
vi	Qty: Over 1mm QR Codes per order	\$0.015	ea	-	\$-
vii	Qty: Over 2.5mm QR Codes per order	\$0.0115	ea	-	\$-
viii	Qty: Over 5mm QR Codes per order	\$0.0075	ea	-	\$-
ix	Qty: Over 10mm QR Codes per order	\$0.0050	ea	-	\$-
x	Qty: Over 25mm QR Codes per order	\$0.0035	еа	-	\$-
xi	Pre-Printed Codes (roll only, 250 codes per roll only + shipping)	\$0.20	еа	-	\$-
xii	Custom Print Labels (same as above, plus design and printing)	\$0.20	еа	-	\$-
	30 NET MONTHLY BILLING CODES SUMMARY:	Subtotal		-	\$-

Attachment 2 - GS1 Fee Calculator

To insure access to the most up-to-date version of the GS1 pricing guide, please go to this weblink and select the hot button to the right of the screen titled "BARCODE AND FEE ESTIMATOR". Here is the website location:

http://www.gs1us.org/get-started/im-new-to-gs1-us/get-your-company-prefix