

Harvest

User Manual for Harvest System

HTTP_418

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1. Introduction

1.1 About Harvest

We as HTTP_418 created Harvest as an application to help farmers manage and control their crops, yields and workforce. Harvest is a two-part program that enables farmers to improve their farms productivity and management. The first part is a web interface with which the farmers create a profile and using this profile, the farmers will be able to create, view and edit farms, orchards, crops, foreman and workers. This web application will also provide the farmer with a means to view a heatmap of the farmer's crops, showing yield concentration as well as viewing individual worker and foreman performance. The second part of the application is a phone/tablet app, downloaded from the associated product's store, to be used by the foreman in the field as the crop gathering is in process. The foreman will update the data for each worker as they bring in crop yields and this information will be used in reports generated for the farmer to view his farm's statistics.

1.2 Installing Harvest

The only installing required will take place on the phone/tablet used by the foreman in the field.

- Navigate to your device's dedicated app store
 - Google Play Store for Android
 - App Store for iPhone or iPad
- Search for the Harvest app in the store
- Click on the install/get button and wait for the application to install on the device

Well done! You have completed the install process for the Harvest system.

1.3 Creating an Account on Harvest

1.3.1 Creating an Account on the Website

In your computer's internet browser, navigate over to www.subtropharvest.co.za. It will look similar to this:

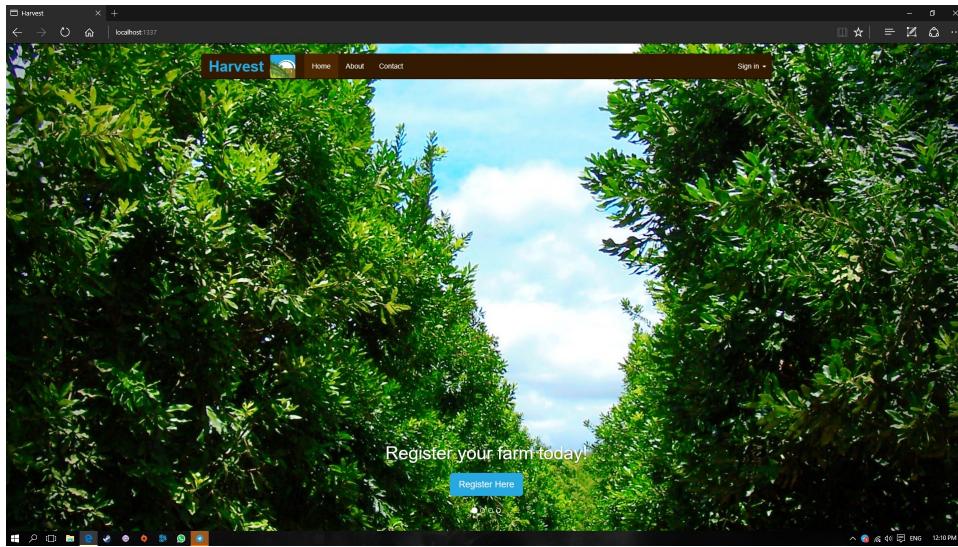


Figure 1.1: Homescreen of Harvest

On the screen, click the blue "Register" button, this will take you to this screen:

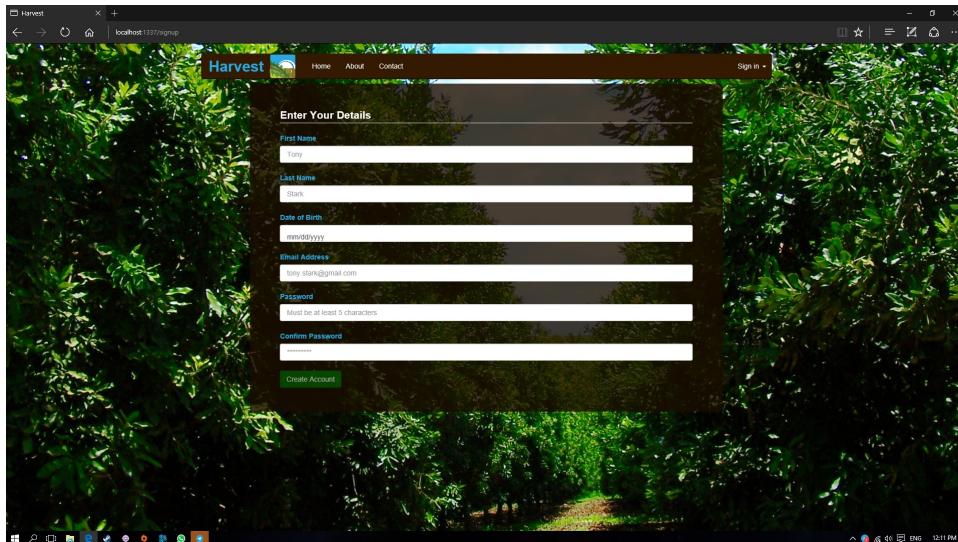


Figure 1.2: Sign up page

On the register page, please fill in all the fields with the correct data! Once you have completed that, click on the green "Create Account" button and, voilà! You are registered, can log in and start setting up the details to manage your farm!

1.3.2 Creating an Account on the Mobile Application

Not Implemented Yet - Will be similar to the website



2. Using Harvest on your Farm

2.1 What do you Need to Know as a Farmer?

Harvest enables you to monitor your farm in its entirety from your home. You simply need to register your farm on the website, log into the website using your credentials and then everything you need to know regarding your farm can be accessed. This includes monitoring your foremen's behaviour, monitoring the performance of your workers overall and at certain times during the day, mapping out the orchard blocks on your farm and monitoring the crop yields they bring in seasonally, annually or currently. The crop yield density can also be easily determined by viewing the heat map that can be generated for your farm. All the details of specific orchard blocks, such as the type of crop, the type of irrigation used, the frequency that cultivation takes place and the type of measurement used for determining yields, no longer needs to manually be recorded. Now everything can be viewed and modified in one place via a simple and user-friendly interface designed to suit your needs. The assignment of workers to specific foreman and allocating foremen to specific orchard blocks can also effortlessly be done using Harvest. All of this is simply done by assigning credentials to your foremen, which allows them to record and view their worker's performance. You can view all the worker performance data that your foremen have entered at any time assuming both you and your foreman are connected to the Internet. The use of unique credentials per foreman allows you to be able to monitor their whereabouts according to their GPS location. These credentials will be generated once you have added a new foreman to the system and then you are required to notify the foreman of these credentials.

How does this benefit you in the long term? Harvest also allows for quick and easy generation of reports regarding worker performance, the amount of crop yield per orchard block, the revenue generated according to the yield collected in a specific season and the amount of time it takes to cultivate certain crops. This offers a multitude of benefits in regard to strategical planning for the future. Such planning includes, financial planning according to seasons, staff requirements and staff payment planning according to how much time is required for cultivating specific crops and

planning where to plant certain crops according to higher yields collected in specific orchard blocks. The monitoring of worker performance can also highlight whether certain foremen aren't being strict enough with managing their workers or highlight the lack of crop yield collected either due to extreme weather conditions or them not working hard enough.

As a farmer, you already have a lot of work on your hands monitoring large amounts of land and staff. Allow Harvest to make this process increasingly easier with the vast amount of benefits it offers.

2.2 Using Harverst on your Computer

2.2.1 General Navigation - What do these buttons do?

- **Logo Link** - This will navigate you back to the homepage of Harvest, which is the farm details page that contains all of the details related to your farm.
- **Your Farm dropdown** - This will drop down a list of options related to your farm.
 - **View Farm Details Option** - This will navigate you to the farm details page.
 - **Orchard Blocks Option** - This will navigate you to the orchard block details page.
 - **Crop Types Option** - This will navigate you to the Crop Types details page.
 - **Irrigation Types Option** - This will navigate you to the Irrigation Type details page.
 - **Cultivation Frequencies Option** - This will navigate you to the Cultivation Frequency details page.
 - **Yield Measurement Option** - This will navigate you to the Yield Measurement Type details page.
 - **View Heat Map Option** - This will navigate you to the Heat Map page.
- **Your Workers dropdown** - This will drop down a list of options related to the workers on your farm.
 - **View Workers Option** - This will navigate you to the workers details page.
 - **View Worker-Foreman Assignments Option** - This will navigate you to the worker-foreman assignments page.
- **Your Foremen dropdown** - This will drop down a list of options related to the foremen on your farm.
 - **View Foremen Option** - This will navigate you to the foremen details page.
 - **View Foreman-Orchard Block Allocations Option** - This will navigate you to the foreman-orchard block allocations page.
 - **Manage Foremen Shifts** - This will navigate you to the foremen shift details page.
- **Your Reports dropdown** - This will drop down a list of options related to the Reports.
 - **Worker Performance Option** - This will navigate you to a page that contains the report on a worker's performance.
 - **Crop Yield Per Orchard Option** - This will navigate you to a page that contains the report on the crop yield related to an orchard.
 - **Seasonal Yield Revenue Option** - This will navigate you to a page that contains the report on the seasonal yield revenue related to an orchard.
 - **Time Taken to Cultivate Specific Crops Option** - This will navigate you to a page that contains the report on the time it took to cultivate specific crops.

- **Notification Bell** - This will navigate you to a page that contains all of your current notifications.
- **Edit Profile Link** - This will navigate you to a page that contains your profile details so that you can modify or update any incorrect details.
- **Log Out Link** - This will log you out of the system.

2.2.2 Mananging Your User Account

Signing in

Select the 'Sign in' dropdown on the right-hand side of the navigation bar. Enter in your email address and password that you used when you created your account. If you don't want to re-enter your details the next time you use the website, you can simply check the 'Remember Me' box and your details will be saved. Select 'Sign in' when you are satisfied with the entered details.

Editing Your Details

Click on 'Edit Profile' on the right-hand side of the navigation bar to update your personal details. You can edit any of the details that you previously entered about yourself and select 'Update Details'.

Changing Your Password

Click on 'Edit Profile' on the right-hand side of the navigation bar. Select the 'Change Password' button to update your password. Enter in the necessary details and select 'Change Password'.

Recovering Your Password

If you have forgotten your password, select the 'Sign in' dropdown on the right-hand side of the navigation bar. Then select the link 'Forgot Password?'. You will be navigated to a form, which requires you enter the email address you used to sign up. An email will be sent to this email address with a link. After you click the link, you will be navigated to a form whereby you can enter a new password. The link in this email will expire after 1 hour from the time the email has been sent. You will automatically be signed in after you have changed your password.

2.2.3 Mananging Your Farm

Adding Your Farm

You will automatically be taken to create a farm after you register an account, or if you have logged in and have not yet create a farm. Enter all related details of your farm and click on 'Create your farm'. Please note that some fields are required.

Editing Your Farm Details

Click on 'Edit Farm' to update details on your farm. Here you can add in missing details or change any details that have changed.

Viewing Your Farm

You will automatically be taken to the dashboard where you can see your farm details, additionally you can click on 'Your Farm -> View Farm Details"

Adding a Croptype

To add a crop type navigate to 'crop type', click on 'add crop type' enter the details. After you entered your details you will have to navigate to Orchard Block and link up the crop type to an orchard block. To know more read 'How to create an Orchard Block'. The same steps are used to create yield measurement type.

Editing a Croptype

To edit a crop type click on the edit button for the crop type you want to change. Enter the new details and click 'update crop type' after successful submit you will be taken back to view crop type. The same steps are used to edit yield measurement type.

2.3 Using Harvest to Manage your Staff

Harvest isn't just for your crops, yields and so, but for your people as well!! You can assign foreman to the mobile app that goes with the Harvest website. There the foreman can use the mobile app to monitor the worker performance of the workers that are assigned under them. The mobile app not only lets you monitor worker performance but also serves as a way to make sure your foreman do not leave the farm when they should not. The app features GPS tracking that can notify you through the website when a foreman leaves his post.

insert step by step guide and screenshots once implemented



3. Troubleshooting

3.1 When my App won't connect?

*Insert step by step instructions once server information is known"

3.2 When my Profile won't display?

Same as above

3.3 When my Reports don't generate?

Same as above



4. Frequently Asked Questions(FAQ)

4.1 App Related

TODO, ask farmers questions at the expo in August to see what confused them.

4.2 Computer Related

TODO, ask farmers questions at the expo in August to see what confused them.

4.3 Profile Related

TODO, ask farmers questions at the expo in August to see what confused them.



5. Still having Problems?

5.1 Telephone

Contact details for Subtrop

5.2 Email

Contact details for Subtrop

5.3 Website

Contact details for Subtrop



6. Glossary of Terms

6.1 Difficult Terms, Phrases and Other Lingo

- **Cultivation Frequency** - The amount of time allocated for the crops to grow before harvesting again. Duration between harvests.
- **Irrigation Type** - The method that is used to water the crops.
- *Insert more difficult terms, phrases and lingo here as they are discovered.*