

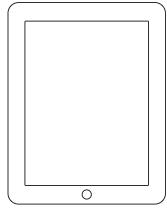


# FieldView™

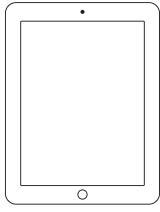
## Operator's Guide



Compatible with:



iPad  
16GB 32GB 64GB



iPad 2  
16GB 32GB 64GB





## Precision Planting, Inc.

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# Precision Planting Warranty & Liability Policy (Revision effective 7-1-10)

### **Warranties, Disclaimers, and Limitation of Remedies:**

These terms and conditions represent the entire agreement between the parties hereto and there are no collateral, oral, or other agreements or understandings, unless expressly stipulated.

Precision Planting warrants that all Precision Planting products, equipment and merchandise are free from defects in material and workmanship. The term of the express warranty recited herein shall be limited to one (1) year from the date of sale by Precision Planting. This warranty shall only extend to the dealer if this warranty is properly presented to Customer. With respect to 20/20 SeedSense, AirForce and RowFlow, the express warranty recited herein shall only apply if such products are properly registered by the Customer.

These terms and conditions represent the entire agreement between the parties hereto and there are no collateral, oral, or other agreements or understandings, unless expressly stipulated.

The express warranty recited herein does not extend to any costs or damages other than one of the following, which Precision Planting shall elect at its sole discretion: replacement, repair, or refund of the purchase price. Precision Planting makes no other warranty of any kind whatsoever, express or implied.

ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED BY PRECISION PLANTING. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

Precision Planting is NOT LIABLE FOR CONSEQUENTIAL DAMAGES of any nature whatsoever, including without limitation lost yield, replanting cost, supplies or other expenses. Precision Planting is NOT LIABLE FOR INCIDENTAL DAMAGES of any nature whatsoever, including without limitation diagnostic and installation expenses, travel expenses, and shipping expenses. The limitations of remedy recited herein apply to any action by the Customer whether or not such action is based in warranty.

Some states or jurisdictions do not allow the exclusion or limitation of implied warranties, incidental damages or consequential damages; so the above limitations or exclusions may not apply to you.

### **Liability:**

Customer assumes all liability for damages from accidents caused by or incurred in the use of transportation of said equipment. Customer agrees to indemnify and hold harmless the said Precision Planting, its officers, agents, and employees from any and all damages and/or liability to any person whomsoever arising out of or resulting from the use, storage, or transportation of said equipment by the Customer or anyone else while the equipment is in the custody of the Customer. The Customer acknowledges receipt of the equipment in good working condition and repair. In the event of any accident involving said equipment, Customer shall promptly furnish to Precision Planting a complete report in writing, with names and addresses of witnesses and parties involved and Customer shall make all reports required by law. Customer agrees to review and follow any published safety instructions in the product manual.

### **Notice of Non-Waiver:**

The failure by Precision Planting, at any one or more time, to insist upon the strict performance by the Customer of the covenants, conditions and/or terms of this agreement, shall not be construed as a waiver of Precision Planting's right to demand strict compliance with and performance of all covenants, conditions and/or terms hereof. Notice of demand for strict compliance is hereby waived by the Customer, and time is expressly made of the essence of this agreement.

### **Choice of Law:**

Any dispute or claim arising from or related to this Policy, or related to a product governed by this Policy, shall be governed by the laws of the State of Illinois.

# Safety Information

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Always wash your hands after working on or around agricultural equipment prior to eating, drinking, smoking, chewing, etc...



Always use the proper Personal Protective Equipment (PPE) for any task.

Examples include: Gloves when handling sharp or abrasive materials

Eye protection when handling contents or systems under pressure (ie.

Hydraulic, Pneumatic, Water)

Welding helmet, Welding gloves, and welders clothing when welding/  
torching



Prior to working under or at ground level of any equipment secure the machinery from movement; accidental user operation or simple rolling of equipment. This should involve Lock-Out tags at the battery, removal of the Ignition key, "Do Not Operate" signs placed at key locations, as well as wheel chocks as necessary.



When working on a vehicle or implement's hydraulic system, suspended components may suddenly drop. If you are working on or around the implement at this time serious injury could result. If possible lower the implement or attachment to the ground before beginning any work. Alternatively; use mechanical lock-up devices to secure any components in their lifted positions.



Agricultural equipment may have been exposed to many types of chemicals. Any chemicals or residues should be removed from the planter prior to beginning work. Obey all existing (new & original) warning signs and caution labels on all equipment.



When working on or around equipment that has been or is running many components may get extremely hot. To avoid injury &/or serious burns allow all equipment components to properly cool before working on or around them.



Avoid wearing loose or ragged clothing or jewelry around equipment, with special attention to avoid moving parts.



Route and secure all wires and connections to avoid crimping or damaging. This may result in unexpected shortages and shocks.



Use extreme caution when working on pressurized systems (Air, Water, Oil). Relieve all pressure from a system before disconnecting lines, fittings, etc... Use a cloth or other obstruction to divert possible spray when disconnecting hose connections, fittings, fill caps, breathers, etc. Always use gloves, NEVER use bare hands. To locate or check for leaks use cardboard, never your hand.



Electrical components and devices may contain high voltages and should be kept dry and closed.

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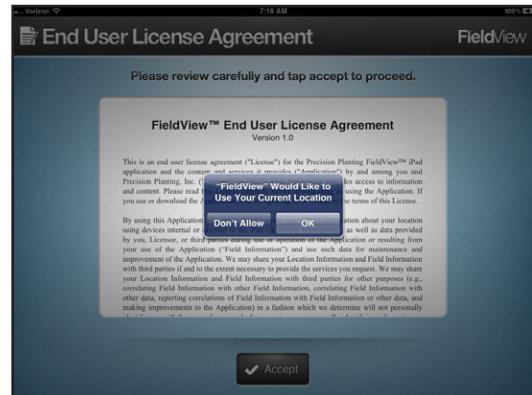
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# Logging in to FieldView

Once FieldView is downloaded to the iPad 2 tablet, tap the FieldView icon to launch the app.

## Step 1

You will be asked several questions as you launch the app. First, it will ask you to allow FieldView to use your current location. Select *OK*.



## Step 2

If you are connected to a FieldView Module (FVM) while logging in to FieldView, you will be reminded that you need to register your FieldView before using it. Select *OK*.



## Step 3

Now you will need to accept the User License Agreement. Select *ACCEPT*.



## Step 4 (Already Have an AutoMap Account)

If you already have an AutoMap account, select the first box and enter your username and password. This will log you into FieldView. If you do not remember your password, select the forgot password option below the log in button.



## Step 4 (Do not Already Have an AutoMap Account)

If you do not already have an AutoMap account, select the second box and create an account. The first page will ask you to create log in information. The second page will ask for contact information. Once your account is created, you will be logged in to FieldView.

# Syncing Data from Previous Seasons

Once you have the FieldView app installed and your FieldView base kit assembled, you can begin transferring planting data from previous seasons to view on your iPad. Only data recorded on a SeedSense display that was operating version 4.0 software or later will be transferred to FieldView. Version 4.0 was released for the 2010 planting season but not all systems used version 4.0 software that year. In addition, your SeedSense display will need to have version 6.0 software or later in order to connect it with FieldView. Data will not sync from the SeedSense to the iPad while you are planting so this operation should be done before planting begins.

## Step 1

In order to sync previous season data with your FieldView, connect the FieldView with the SeedSense as described in the Installation and Quick Start Guide.



## Step 2

Once you connect your iPad with the SeedSense, the app will automatically launch the sync screen.



## Step 3

Select the seasons that you would like to sync and press *SYNC*. As noted above, only data recorded on the SeedSense with version 4.0 or newer software will sync to FieldView.

**\*NOTE:** Approximately 100 acres will sync per minute. At this rate, a 500 acre farm will take approximately five minutes to sync.



## Step 4

Once your data is synced, you will be prompted to go to the Data Manager to create maps from the data.

# Syncing Data from Previous Seasons

## Step 5

To create maps from the field data synced to your iPad, select the season (crop year) at the top that you would like to work with and then select the fields you would like to work with (clicking the top box will check all fields). Press *BUILD MAP*.



**\*NOTE:** This process will also take time. Maps will build at a rate of approximately 20 – 40 acres per minute. At this rate, a 500 acre farm will take from 25 – 50 minutes to build maps.

## Step 6

Repeat Step 5 for each crop year for which you would like to build maps.



**\* WARNING: DO NOT DELETE THE FIELDVIEW ICON FROM YOUR IPAD. DELETING THE ICON DELETES THE APP AND DELETING THE APP DELETES THE DATA STORED IN THE APP. IF YOU DELETE FIELDVIEW YOU WILL HAVE TO REPEAT THE PROCESS OF SYNCING AND THEN BUILDING MAPS ALL OVER AGAIN.**

# Using the Tools Menu

The Tools Menu has a variety of functions that assist you in operating your FieldView software. Press **TOOLS** on the main menu to access the Tools menu.

## About/ Version Info

This screen shows your FieldView version with that version's release notes including description, features list, changes from previous versions, and other notes. You may also view the License Agreement and Privacy Policy on this page by pressing **VIEW**.



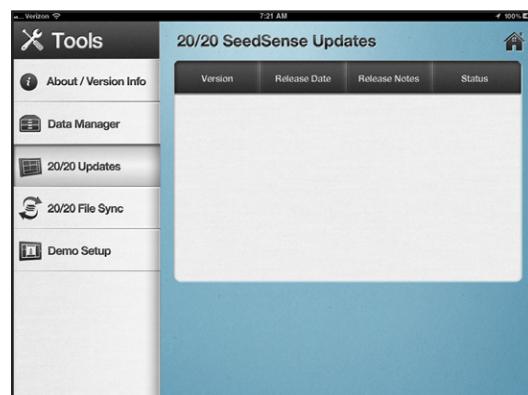
## Data Manager

The Data Manager allows you to manage the field data that is stored on your iPad. You can choose between various seasons of data at the top and various fields within that season along the left. The three options at the bottom are **BUILD MAP** (takes field data synced from the SeedSense display and builds FieldView maps from that data), **DELETE MAP** (deletes the FieldView maps associated with the selected fields but leaves the underlying field data in place), and **PURGE FIELD** (deletes the field data synced from the SeedSense for that field and removes the field from the list). Operations that have been selected but have not been completed may be cancelled by pressing the operation and choosing to cancel it from the prompt.



## 20/20 Updates

Under 20/20 Updates, you will see listed one or more versions of recent SeedSense software. This will allow you to update the software on your 20/20 SeedSense display through your iPad's data connection. As 20/20 SeedSense software versions are released, they will be downloaded to your iPad. As additional updates occur, the list will grow. Only the three most recent updates will be stored on the iPad. To go back to an older version, you may press that older version to re-download that software version. To update your SeedSense display unit software, select the software version that you would like to load and press **INSTALL**. This can only be done when the iPad and SeedSense are connected and you are not planting. The process will take approximately 20 minutes to transfer the software to the display unit at which time you will be prompted to **COMPLETE** the process which will restart the display to complete the software update.



# Using the Tools Menu (Continued)

## 20/20 File Sync

Use the 20/20 File Sync screen to sync data from the SeedSense display to FieldView. This is generally done automatically when logging into the SeedSense for the first time. To sync data that you chose not to sync initially or that has been deleted from your iPad under the Data Manager, select the crop year that you would like to sync and follow the process described above.



## Demo Setup

FieldView has demo fields loaded that you can use to see what the FieldView will look like during planting operations. Under the Demo Setup tab, select one of the available demo fields and press *RUN DEMO* to activate one of these demos. Demos will not run when connected to a SeedSense even if you are not planting.



# Using the Help Menu

The Help Menu provides you with technical support for your FieldView app and contact with Precision Planting's Product Support Department for technical support on all products.

## Contact Support

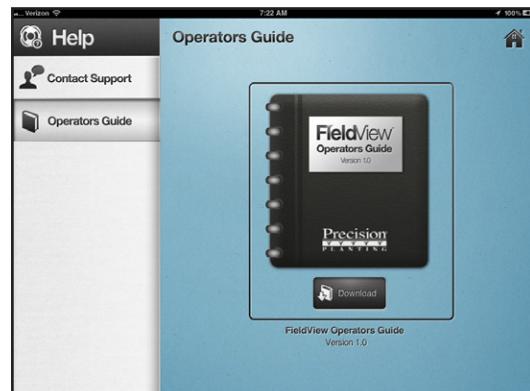
When you have a question about the operation of your FieldView app, you are encouraged to first attempt to reach your Precision Planting dealer for assistance. Your dealer has been trained in the operation of this product and knows your situation the best.

If you need to contact us directly, there are three options. You may call our office, contact us by e-mail, or submit a support ticket through our ticket support system. In addition to calling us from your mobile phone, you may also press the *CALL SUPPORT* button. If you have the Skype app installed on your iPad and credit purchased with Skype to call land line phones, you may press this button to connect to our support team. Pressing the *EMAIL SUPPORT* button will open a blank e-mail addressed to our support team. Enter your question or information on your problem and hit *SEND*. To enter a support ticket, press *SUBMIT TICKET*. This will open your web browser and take you to our ticket support website. Log in using your AutoMap log in and enter a support ticket. Submitting a ticket will often result in the fastest response from our Product Support team.



## Operator's Guide

The FieldView Operator's Guide is available within the app. Press *DOWNLOAD* to download the Operator's Guide (this document) to this page so that it can be quickly accessed on your iPad. To delete the guide, press and hold the *VIEW GUIDE* button until the guide is deleted. You will then be able to re-download the guide.



# Navigating the Map Screens

## Planter Summary

On the left side of the screen is a collapsible display showing the key data points from your SeedSense screen. This allows you to see the most important information from your SeedSense display while looking at FieldView. The information displayed in this collapsible box is planter average information and is identical to the information displayed on your SeedSense screen. To collapse or open the Planter Summary, press the button at the top left corner of the screen.



## Navigation Menu

On the top right of the screen is a collapsible display showing navigation options for FieldView. There are four zoom options in this menu. The Field Zoom button takes you to a zoom level that allows you to see the entire extents of the field. When connected to a SeedSense, the top right button is the Planter Zoom button. It takes you to a zoom level centered on the planter showing one pass in detail. When you press the planter zoom button the screen will remain centered on the planter as it moves. When you are not connected to a SeedSense, the top right button is the “person” level zoom button. This takes you to a zoom level showing the immediate vicinity of your current location using the internal GPS of the iPad if you are within the extents of the active field. Your current location will be identified by a blinking blue dot. The middle set of buttons are a zoom in (+) and zoom out (-) option. The bottom left button will open the Report for the map being displayed. This report shows tabular, row-by-row performance for the map being viewed. Reports are currently available on the Singulation and Spacing maps. On other maps, the option is grayed out. The last button is the home button which returns you to the FieldView home page from which you may access the Demo (when not connected to a SeedSense), the Tools Menu, and the Help Menu.



## Selecting Fields

The Field Selector at the top of the screen displays the viewing field, the crop planted in that field, and the crop year. To view a different field, press the selector and touch the field that you would like to view. This allows you to view fields already planted either while planting another field or while idle or disconnected from the SeedSense.



# Navigating the Map Screens (Continued)

## Navigating between Maps of the Same Field

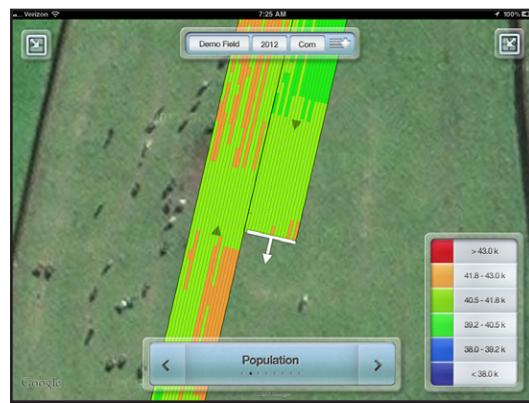
When viewing a field, either while actively planting or while reviewing an already planted field, you may move between the various maps of that field by using the navigation tool at the bottom of the screen. The center of this bar displays the map currently displayed (i.e. DownForce). To view another map, such as the singulation map, you can press the right or left arrow until the Singulation map appears. Alternatively, you can press the name of the map being displayed and select the map you want, such as Singulation, from the list that appears. This is also the place to change the year or crop for the data being viewed. When you press the name of the map being viewed (i.e. DownForce), the crop and year being viewed is displayed with the option to change to another crop/year combination such as changing from “corn 2011” to “beans 2011” or from “corn 2011” to “corn 2010”.



# Understanding FieldView Maps

## General Principles

FieldView displays its maps in a row-by-row format. Each row of the planter is individually displayed in the map. Each planter pass is differentiated by a heavier black line. Directional arrows under each pass indicate the planter's direction of travel. A legend is displayed in the bottom right of the screen. The legend identifies the values identified by each color on the map. Some legends may be edited and others may not. Legends are described below under each individual map entry.



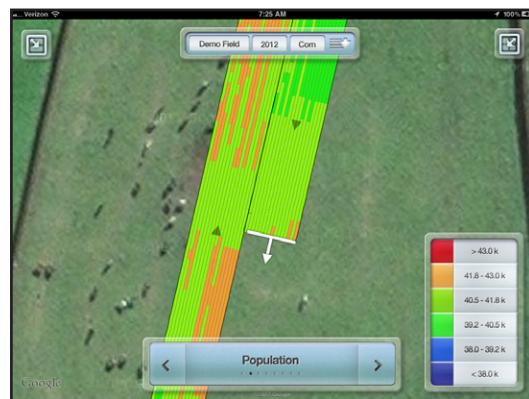
## Hybrid

The Hybrid map displays the varieties planted in a particular field as recorded by the SeedSense display. In order for this map to accurately display hybrids, you must correctly set up your hybrids in the SeedSense display and assign them correctly to rows. The legend cannot be edited but will grow as additional hybrids are planted in the field.



## Population

The Population map indicates the population at which the crop was planted. Each row is individually calculated and displayed allowing you to track population on each individual row. This data is updated once per second. The Population legend may be edited to reflect the population that you are planting in the field. Once you create a legend for a field, that legend is saved and will be displayed each time you view the field. When beginning a new field, the legend will default to the legend of the previously planted field until you change it.



# Understanding FieldView Maps (Continued)

## Singulation

The Singulation map displays the performance of each meter on the planter. For each second of data, five blocks are painted for each row. If there are no singulation errors, all five boxes will be green. For each error in that second, one of the five boxes will be colored to identify the error: red for a skip, blue for a multiple. If there are five or more errors in that second of data, all five boxes will be colored. The legend identifies the meaning of each color and may not be edited. This map is based on explicit singulation errors rather than a percentage of properly singulated seeds as calculated by the SeedSense.



## Spacing

The Spacing map displays the seed spacing errors as recorded by the SeedSense. Misplaced seeds are identified by the SeedSense as Severely or Moderately misplaced. This map is built in the same way as the Singulation map. For every second of data, five blocks are painted on each row. For each error in that section, a block is colored to indicate a Severely Misplaced or a Moderately Misplaced Seed. If there are five or more errors in that second, all five boxes are colored. The legend identifies the meaning of each color and may not be edited. To understand how seeds are characterized as severely or moderately misplaced, see the 20/20 SeedSense Owner's Manual. Like the Singulation map, it is based on explicit errors rather than a percentage of properly placed seeds.



# Understanding FieldView Maps (Continued)

## Down Force

The Down Force map displays the weight detected by the down force sensor on each row that has one. This map will only show data for rows equipped with a down force sensor. This map is based on 5Hz information meaning that each block in a row of data represents 200 milliseconds of data (about 18" at 5 mph). The color displayed shows the weight recorded by the down force sensor for that fifth of a second. Whenever no weight is recorded, the block will be blue indicating a loss of ground contact. The other colors in the legend will indicate various ranges of weight as recorded by the down force sensors. This legend may be edited.



**\*Note:** DownForce data that was recorded without a FieldView attached to the SeedSense while planting will not be available at full 5 Hz resolution. This is true both for previous season data that was recorded by the SeedSense before you owned FieldView as well as for data recorded this season while FieldView was disconnected from the SeedSense display. Data imported to FieldView that was recorded on SeedSense displays operating version 4 or 5 software will be 1 Hz data (all five blocks for the second of data will have the same value) while data recorded this season on version 6 software without a FieldView attached will be displayed at 5 Hz (each block will have its own value) but it will be laid down with 1 Hz location information.

## Good Ride

The Good Ride map shows the percentage of time that row unit ride is sufficiently smooth to not affect planter performance. This is one second data and you cannot edit the legend.



## Speed

The Speed map displays the tractor speed as recorded on the SeedSense. This information is updated once every second. The legend assigns colors to each range of speed and cannot be edited.



# Understanding FieldView Maps (Continued)

## Coverage

The Coverage map indicates areas that have been planted. It paints the map based on seed dropped by each row. This map is updated five times per second (5 Hz) and should match the coverage map on the SeedSense. The color displayed will be dark grey as the planter passes over ground it has planted and will be black in areas where over planting has occurred.



## Editing Legends

Some of the map legends may be edited. These include population and down force. To edit a legend, tap the legend and press the edit button at the top left of the legend. Once the legend editor is displayed, you may increase or decrease the number of ranges to be displayed in the legend as well as the top and bottom of each range. Colors are automatically assigned and cannot be selected. The legend may be collapsed or expanded by tapping the collapse/expand button.



## Making Notes

In FieldView, you have the option of leaving notes on a field map for later use. To leave a note, press the surface of the map in the location for which the note is relevant. This will drop a pin and open a dialog box. In this dialog box, you may enter your note and even add a picture if necessary using the camera in your iPad. This feature allows you to note features such as stones that need to be removed, tiles that need repair, events that occur on the planter at that spot, etc. Later, when viewing the field, you may press the pin and the note will be displayed along with access to any picture that you might have attached to the note.



# Other Features

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## Taking a Screen Shot

There may be occasions where it is helpful to take a screen shot of the iPad screen to record what is being displayed either for record keeping or troubleshooting. To take a screenshot of your screen, press and hold the power button on the side of the iPad and the home button on the front of the iPad simultaneously. A picture of the screen as it appears at the time will be taken and stored with your other pictures in the camera roll.

## Syncing Data from Multiple SeedSense Displays

For operations that have more than one planter, you can combine the data from multiple SeedSense/FieldView combination together. If, for instance, you have two planters that sometimes operate in the same field and sometimes in different fields, you may want all of your planting data on both of your iPads rather than just half on each. To do this, plug the iPads from the two cabs into the SeedSense display in the other cab and sync the data. Then, go to the data manager and build the maps. If the Client/Farm/Field structure in the two systems matches, then the data from the two planters will combine together into a single set of maps.

## Data Plans

If you have not already set up a data plan for your iPad, you may do so by pressing the *SETTINGS* icon on your iPad and selecting *CELLULAR DATA* from the menu at left. On the right side of the screen, select *VIEW ACCOUNT*. Fill in the information required and select the amount of data that you would like to purchase on a monthly basis. You will likely need 1 – 2 GB per month while planting. At any point, you may return to the *VIEW ACCOUNT* screen, log into your account, and track your data usage.

If you do not have a data plan for your iPad, there are certain features of FieldView that will only work if you have a Wi-Fi connection. These features include:

1. Background Google imagery will not be displayed while viewing or building maps.
2. You will not be able to update your SeedSense software while in the field.
3. You will not be able to download AutoMap prescriptions from the web directly to the FieldView app and then transfer them to the SeedSense display.
4. You will not be able to e-mail support or enter a support ticket from within the app.

If you have an iPad that does not have 3G functionality, then it will not have an internal GPS receiver and you will not be able to use it to scout fields while disconnected from the SeedSense.

## Setting Up e-mail on the iPad

In order for certain functions in FieldView to operate, especially the ability to contact support from within the app by e-mail, you will need to set up your e-mail on your iPad. To do this, follow the following steps:

1. On the iPad, select the *SETTINGS* icon.
2. On the left, select *MAIL, CONTACTS, CALENDARS*.
3. On the right, select *ADD ACCOUNT...* under Accounts.
4. Select the type of account you would like to add (Gmail, Yahoo, etc).
5. Enter the required information as prompted (name, e-mail address, password, etc).
6. Use the e-mail icon on your iPad to access e-mail from this account on your iPad.