

VRScout Hops

VRScout Hops

Game Manual



NORTHWEST CROPS & SOILS PROGRAM



Developed by:

Game Theory, Co.

University of Vermont Extension Northwest Crops and Soils Program

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Introduction

Hop growers must be experts in scouting for insects and diseases that can affect their hop quality and yields. VRScout Hops transports growers into a virtual hop yard where they are tasked to identify some of these pesky organisms, beneficial insects, and diseases seen in the Northeast. This tool is a unique platform for growers to practice scouting year-round, better preparing them for the field season.

Insects and Diseases to Identify:

- ♦ Japanese Beetle
- ♦ Potato Leaf Hopper
- ♦ Hop Looper
- ♦ Downy Mildew
- ♦ Lady Bug
- ♦ Two Spotted Spider Mite
- ♦ Spider Mite Destroyer



System Requirements

UVM Extension NWCS purchased an **Oculus Rift** for this project! The VR system comes with **one headset, two hand controllers, and two sensors.**

To borrow this VR system,
email:

Susan.Brouillette@uvm.edu

To purchase, go to:

<https://www.oculus.com/rift/>



Image: <https://skinflint.co.uk/oculus-rift-touch-bundle-301-00095-01-a1675273.html>

You will also need a **desktop computer and monitor** to run the game software.

See the following page for computer requirements.

System Requirements

Before you purchase an Oculus Rift, run the Oculus computer compatibility check tool!

To download and run the Rift compatibility check tool go to: <https://oculus/compat-tool>

After running the compatibility check tool, it'll tell you if your computer:

- ♦ **Meets or exceeds the recommended system specifications:** You should be able to power the full Rift experience.
- ♦ **Meets or exceeds the minimum system specs:** You should be able to run the Rift, but you may come across problems with certain games that Oculus won't be able to fix.
- ♦ **Doesn't meet the minimum system specs:** You may not be able to run the Rift at all.

If you find out your computer doesn't meet the minimum or recommended system specs after running the compatibility check tool, you can:

- ♦ Contact UVM Extension NWCS team to see if we can help connect you with a desktop!
- ♦ Check with local media centers and/or libraries for virtual reality rentals.
- ♦ [Upgrade the components](#) you need to meet the minimum or recommended system specs below

More info can be found at: <https://support.oculus.com/248749509016567/>

Computer Specifications:

Component	Recommended Specs	Minimum Specs
Graphics Card	NVIDIA GTX 1060 / AMD Radeon RX 480 or greater	NVIDIA GTX 1050 Ti / AMD Radeon RX 470 or greater
Alternative Graphics Card	NVIDIA GTX 970 / AMD Radeon R9 290 or greater	NVIDIA GTX 960 4GB / AMD Radeon R9 290 or greater
CPU	Intel i5-4590 / AMD Ryzen 5 1500X or greater	Intel i3-6100 / AMD Ryzen 3 1200, FX4350 or greater
Memory	8GB+ RAM	8GB+ RAM
Video Output	Compatible HDMI 1.3 video output	Compatible HDMI 1.3 video output
USB Ports	3x USB 3.0 ports, plus 1x USB 2.0 port	1x USB 3.0 port, plus 2x USB 2.0 ports
OS	Windows 10 or newer	Windows 10 or newer

Install Instructions

Download Oculus Software onto Computer:

Once you have the Oculus Rift, download the Oculus Software on your computer by visiting:

<https://www.oculus.com/rift/setup/> and selecting 'Download Oculus Rift Software'. This will allow you to run the game.

Download VRScout Hops Game:

1. On your computer, navigate to the following link:

<https://drive.google.com/drive/u/2/folders/1BC3wP-OeMr5KZrcJJkGd7M8KxMZP3A2P>

2. Download **VRScout—Hops.zip**. If your browser asks if you want to keep the file, choose to do so.
3. Location the download on your machine and unzip the file.
4. Locate the unzipped folder, and double click **VRscout—Hops.exe** to launch the game.
5. If the file doesn't launch, you may need to check your firewall settings. Some systems will block the application by default. You can open your firewall and choose to allow the app through, or you can run the app as an administrator.

How to Play

When a player enters the game, they will be prompted to select a level.



Once a level has been selected, the game will explain how to play! First, instruction on how to move between orbs in the hop yard is given.



How to Play

The next page will show how to use the controller to select a hop leaf for analysis.



Once a leaf is selected, the game will zoom-in on that leaf for the player to analyze.



How to Play

The player then will see how to finish a level by moving to the FINISH orb at the far end of the hop yard. This orb has a yellow shadow underneath it.



Once finished with the introduction, the player will be free to move about the hop yard! They will want to begin by moving between orbs using the controller.

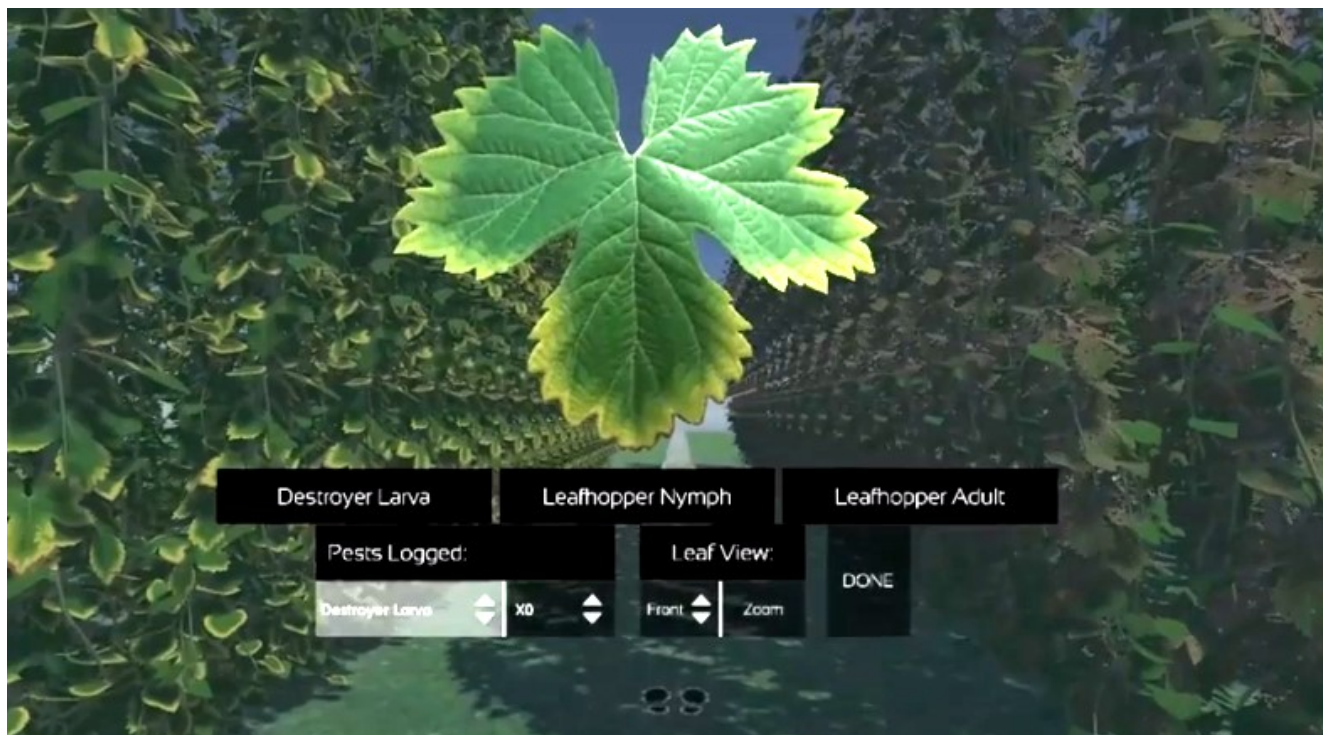


How to Play

When the player sees a leaf they want to analyze, they will select it.



Once selected, they will analyze the leaf and log any pests, beneficial insects, and/or damage types they see using the logs.



How to Play

The player can zoom in, flip the leaf to view back and front, and move around.



Player can select DONE on the log screen when finished with a leaf and continue moving around the hop yard, selecting leaves for analysis at their choosing.



How to Play

When the player is ready to leave the level they are in, they will navigate to the orb at the far end of the hop yard with the yellow shadow underneath it (shown to the right in the screen shot below). This is the portal that will allow them to exit the level.

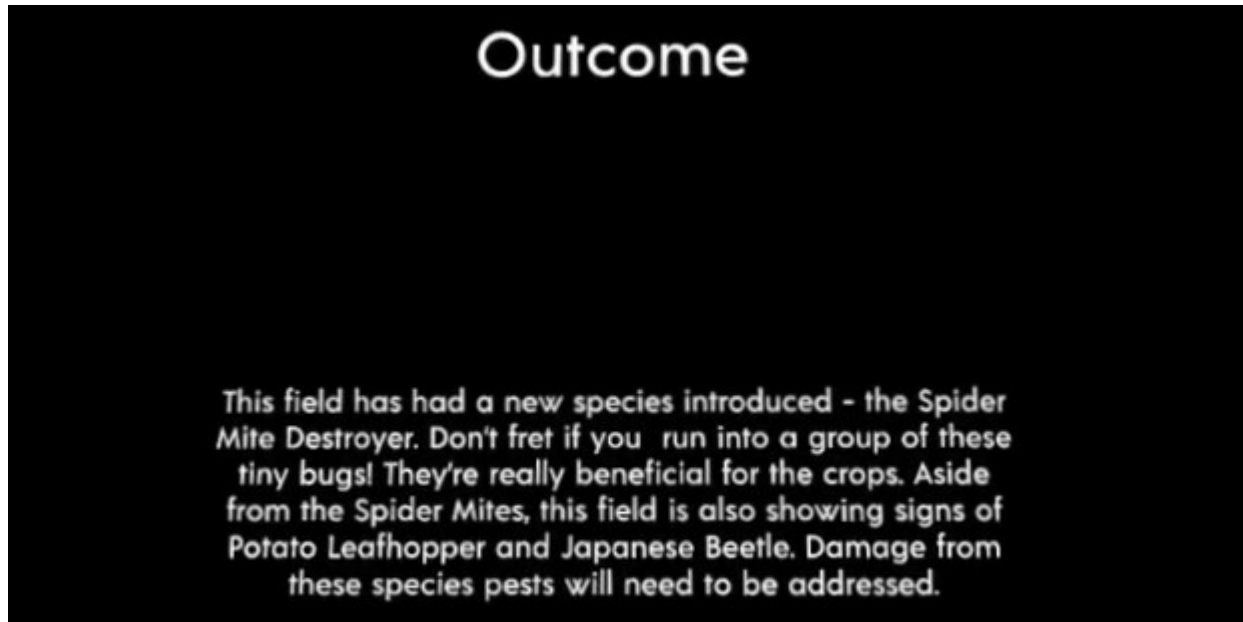


The player can then review their score card! This screen shows the player how accurately they scouted in the hop yard by comparing the number of reported insects and/or diseases to the actual number of insects/diseases that were present.



How to Play

The end of each level presents the player with a Level Outcome. This explains what was present in the hop yard, and the significance of those organisms.



The player will then return back to the Level Select menu.



Technical Support

Contact UVM Extension NWCS:

Phone: 802-524-6501

Address:

UVM Extension Northwest Crops and Soils Program
278 South Main Street, Suite 2
St. Albans, VT 05478-1866

Website: <https://www.uvm.edu/extension/nwcrops>



Credits

VRScout Hops was developed in collaboration between [Game Theory, Co.](#) and the [University of Vermont Extension Northwest Crops and Soils Program.](#)



This work is supported by Crop Protection and Pest Management Program [grant no. 2017-70006-27143/1013802] from the USDA National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.



United States Department of Agriculture
National Institute of Food and Agriculture

Notes

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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