



Hello,

Welcome to the documentation of the new member of the Farming Products series, Ultimate Windmill. This documentation has been prepared to provide you with detailed information about the correct usage, details, and content of the product. If you cannot find answers to your questions, feel free to contact us. Contributing to your game development process would make us happy.

Best regards, CropCraft Studios Team 😊

cropcraftstudios@gmail.com

# Package Included

Our product consists of a meticulously prepared semi-modular Windmill and the entire stages of Wheat. The Windmill, being semi-modular, allows you to use different walls and roofs. It also has options for open or closed sails. The entire mechanism is rigged, animated, and the sails are painted with cloth paint to respond to the wind. The interior design is done on all floors with stairs allowing the character to move between floors. There are two options for the external walls: stone walls prepared using displacement or standard flat walls. When using flat walls, UVs are opened in a way that is suitable for seamless texture use, making it suitable for use with your own materials. Similarly, the interior walls are also suitable for seamless texture use. The Wheat in the package includes all versions from the seed stage to the harvest stage, and materials obtained after harvest are also included.



### **Material System**

The master material used in this product is divided into 3 parts: Foliage, Glass, and Hardsurface. The Hardsurface material has various features, similar to what we used in our Modular Old Town product. It includes UV Rotation, Scale and Offset, Brightness, Desaturation, Color Overlay for color adjustments, Normal Map sharpness adjustments, and Roughness settings. In addition to all these, there is an option for a double-layer Blend Mask. By using this option with mask maps, you can apply various visual effects such as dirt and dust on the material.

The Foliage material uses the exact same foliage system as our Ultimate Farming package. It allows important adjustments such as color, brightness, SSS on plants, and utilizes the wind system. The wind system is controlled with a material parameter collection, allowing you to implement all the subtle details like wind strength and direction. Additionally, there is a character interaction function within the material.

The Glass material is a classic glass material applied to the windmill's glass panels, with a transparent structure.

### Use Blend Masks

The usage of Blend Masks is quite simple. First, check the "Open Blend Masks" option at the bottom. After that, choose one of the R - G - B options that appear. There is an RGB masking system where each channel has one mask map. You can use the mask maps in the region where the maps are located above or create and apply your own mask map.



### Wind

The wind system we utilize is recommended by Unreal Engine and works in conjunction with Vertex Paint, similar to how it is employed in certain Megascans packages. This system provides you the ability to make global adjustments to the wind's direction, intensity, and various other nuanced settings. Moreover, it operates through a material parameter collection, allowing for swift integration with your software and facilitating real-time modifications.

a 🖬 🗳		
🔀 Details 🛛 🗙		
Q Search		
▼ Material		
▼ Scalar Parameters	4 Array elements	⊕ ū
	WindStrength	
Default Value	0,0	
Parameter Name	WindStrength	
	WindSpeed	
Default Value	2,0	
Parameter Name	WindSpeed	
	WindTiling	
Default Value	15,0	
Parameter Name	WindTiling	
	WindNoise	
Default Value	0,5	
Parameter Name	WindNoise	
Vector Parameters	2 Array elements	⊕ <sup>1</sup> Ū
	PlayerLocation	
	WindDirection	
▶ Default Value		
Parameter Name	WindDirection	

"The "wind" tab on material instances is specifically where you adjust the plant's reactions to the wind. Resetting the settings on this tab ensures that the plant won't respond to the wind. In other words, the wind's effect on the plant will be nullified, and the plant will remain static.

🔻 04) Wind				
VindAnimationStrength	0,0			¢
VindNoiseStrength	0,0			¢
		Save Sibling	Save Child	
▼ General				

# **Player Interaction**

The M\_Foliage and M\_Fruits master materials contain player interaction functionality. However, we are providing the package without enabling this functionality by default. The reason for this is that the integration of player interaction code depends on the specific player controller software being used, which can vary from person to person. If you wish to activate this feature, you can open the M\_Foliage and M\_Fruits master materials, make the connections as shown in the visuals, and then introduce the "player location" tab from the material parameter collection in the package into your character controller software.



### Technical Details & Recommended Usage

- This package is highly suitable for the development of realistic computer games based on farming.
- Its main focus is on wheat and its various stages, distinguishing it from the Ultimate Farming package.

• The Windmill included in the package is meticulously designed, mimicking the entire working system of a real windmill, with attention to all fine details.

Note: The recommended usage can be subject to change according to your own creativity and objectives during the game development process.

#### **Triangle counts**

- Lowest triangle count: 34 (Wheat Seed)
- Highest triangle count: 274882 (Windmill Stone Wall)
- Average triangle count: 5700

Note: All objects in the package utilize Nanite, When using this package with Unreal Engine 5.2 and above, it is strongly recommended to utilize the Nanite and Lumen systems.

https://docs.unrealengine.com/5.0/en-US/lumen-global-illumination-and-reflections-in \_unreal-engine/