



VISION ROBOTICS
Lettuce Thinner



The VR Lettuce Thinner is manufactured by Vision Robotics Lettuce Productions LLC and sold by RDO Equipment Company. Talk to your local RDO office for more information and a demonstration.

Vision Robotics' VR Lettuce Thinner removes labor uncertainty and rising costs associated with hand-thinning operations and puts the grower in the driver's seat. Superior performance and ease of use have been the hallmarks of the VR Lettuce Thinner since it was introduced in 2012. These vision-based thinners select the superior plants with ideal spacing while thinning the unwanted plants using a robotic spray mechanism. Growers can quickly customize parameters to optimize the system for their specific needs. The 4th generation, introduced in 2019, includes increased modularization in a lightweight, cost effective system.



Spray thinners offer many advantages to growers when compared to hand-thinning:

- Availability
- Large cost savings
- Increases lettuce uniformity and yield
- No damage to keeper plants
- No disturbance to soil surface minimizes weeds
- Detects and eliminates less vigorous plants and most doubles
- Decreases both fertilizer and herbicide usage

Individual hoods over each line include a computer, camera and spray assembly. Repositioning each self-leveling hood is easy, enabling quick in-the-field setup for different field- and bed-configurations. The driver commands and monitors the thinner via a handheld tablet. The system mounts on a tractor via a 3-point hitch that includes a vision-

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based smart sliding hitch and software that automatically adjusts the thinner to uneven rows and beds. Light indicators provide immediate feedback to the operator and the system includes a remote modem and internet capability for on-line support directly from the field. The thinner is designed to perform under windy conditions and nighttime operations to maximize its benefits.

Features	VR Thinner	Others
Price (approx. depending on config)	\$300,000	\$400,000
Weight (approx)	1,700 lbs	4,000 – 5,000 lbs
Recommended Tractor Approx. weight	John Deer 5115M 9,000 lbs	John Deere 6120M 11,486 lbs
Fielded Weight	11,000 lbs	16,800 lbs
Sliding Hitch	Standard	Optional
Ability to Customize	Yes	No
Multiple Bed Sizes	Yes Single 4 Bed 38, 40 or 42 3 Bed 76, 80 or 84	No Thinner built for single bed size
Max Seed Lines	24	18
Recommended Speed	2.5 – 3.0 MPH	2.5 – 3.0 MPH
Gallon per Acre (approx)	25	30
Maintenance	Simple operator repair. Electronics replaced as modules.	Tightly integrated design requires complex procedures for simple problems.
Sample part prices		
Camera-Computer module		
Solenoid	\$4,000	\$7,000
Module power cable	\$300	\$600
	\$35	\$400
Features	Double and size detection Dual spray Remote access UI / Display Any Water like chemical	



Easy to purchase – Easy to use



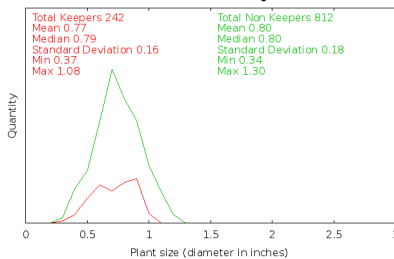
Easy to setup for any configuration
This shows a 3- bed setup for 42" beds



Simple and modular

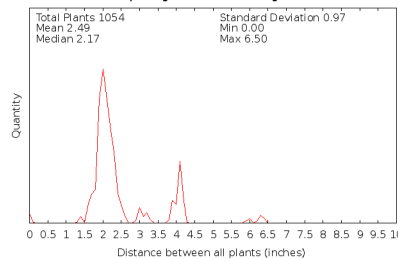
Vision Robotics Lettuce Thinner

Plant Sizes For All Lines Aug 20 11:41



Vision Robotics Lettuce Thinner

Plant Spacing For All Lines Aug 20 11:41



Plant count, size, and spacing collected

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