NEW
Auto-Dry™
AUTOMATIC RAIN SHELTERS

The lowest cost automated retractable rain shelter system with enhanced heat retention capabilities!




LOW CO$T

Protect hectares or acres in minutes from rain, dew, hail, excessive cold, heat and wind


Auto-Dry™ climate optimization and extreme weather protection helps solve 10 of the biggest problems facing growers of outdoor crops that occasionally need protection


Weather

1. Prevent low yields and poor quality by managing rain, dew, hail, cold, heat or wind

The market

2. Shift your harvest to the higher price windows.

3. Satisfy your buyers constantly increasing quality demands.

Labor

4. Reduce labor requirements in an already challenging market with fewer, more expensive or less skilled workers by reducing labor:

- for spraying
- for movement of roofs
- by increasing harvest efficiencies

Regulations

5. Reduce the need for agri-chemicals by improving the growing environment which will help you compensate for the reductions in approved chemicals.

6. Avoid local government regulations that prevent the construction of permanent greenhouses:

a) The Auto-Dry™ can be installed on augers to avoid classification as a permanent building. (Concrete for gable bracing is highly recommended)
b) Power could be supplied to Auto-Dry™ by solar panels or by a generator to eliminate the need to connect to the grid.
c) Water is channelled to the valley away from crops and onto the ground which can eliminate the need for a storm water management plan.

Remote fields or orchards

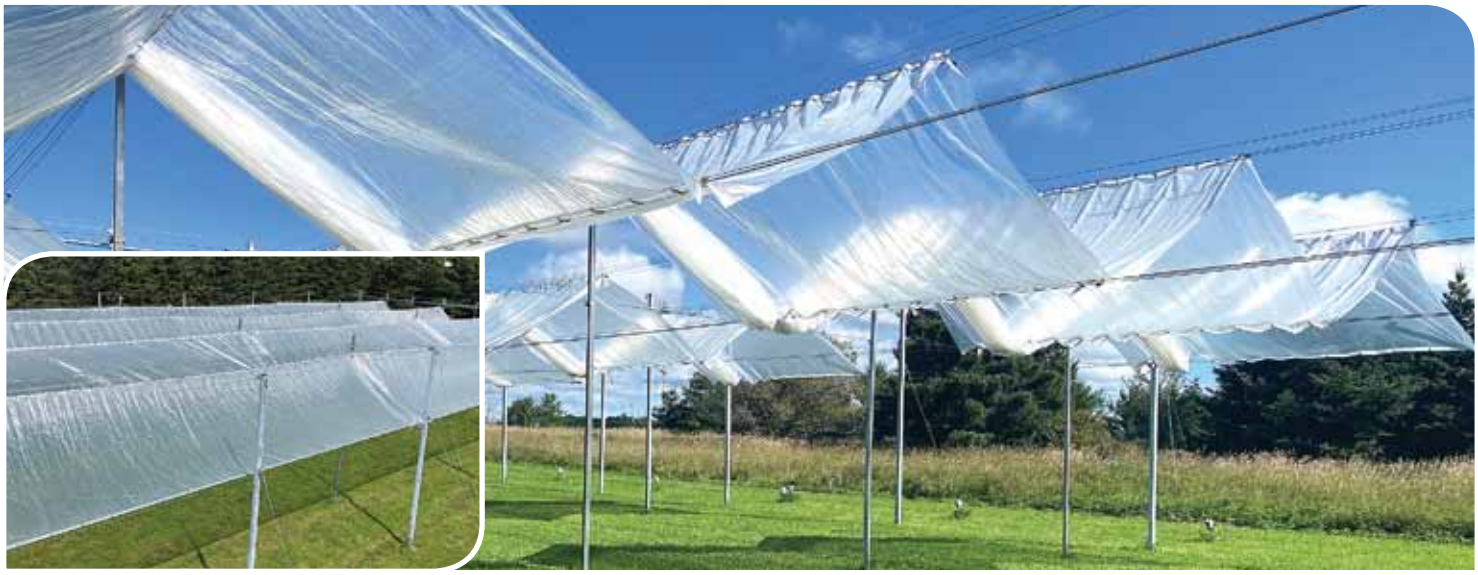
7. Remote fields or orchards can be protected by using portable power supplies or by solar panels with battery storage to power the Auto-Dry™. Only 2-3 kWh of electricity is required per hectare per day.

Existing crop protection solutions cannot respond to fast changing weather conditions or are too expensive to achieve an acceptable ROI

8. Eliminate the labour requirement and shorten the response time since traditional manual rain shelter solutions cannot be easily or quickly opened or closed.

9. Prevent the heat and humidity buildup in conventional tunnels.

10. Auto-Dry™ is a lower cost retractable roof solution in Cravo's portfolio for crops requiring occasional protection cherries, grapes, or kiwi fruit, berries, or outdoor flowering crops.

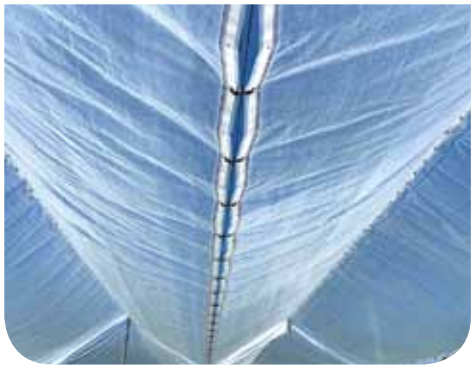


Auto-Dry™: The optimal combination of conventional rain shelter and Cravo retractable roof technology

One motor can close 0.8 ha or 2 acres of roofs in 4-6 minutes allowing for rapid protection of crops. The straight drive line avoids the need for universal joints.

The unique drive design powers the roof covering at the peak and valley to ensure optimal closure of the roof covering. (Patent pending)

Stainless steel cables, galvanized coated cable and heavy duty bearings ensure long term trouble free operation.



The tight connection at the peak helps minimize the entry of rain, and a tight closure at the valley provides enhanced heat retention allowing you to advance the harvest by maintaining warmer temperatures in the spring and providing a greater degree of frost protection.

Retracting the covers before damaging winds arrive will help prevent damage to the covering or structure.

Tying up the retracted covers seasonally when not in use will help extend the life.

The structure can be installed using concrete or screw in augers. To better stabilize the drive system, concrete is highly recommended for gable bracing anchors especially in poor soil conditions.

Structure has been designed to allow "tilt-up of posts" to facilitate installation over existing crops.

Factors to consider when deciding whether the Auto-Dry™ or other Cravo houses are more suitable for your application

	Auto-Dry™ rain shelter	X-Frame, Rafter, A-Frame
		
Ideal crops and applications	Crops typically grown in the outdoors or under traditional rain shelters, hail nets or in tunnels such as tree fruits like cherries, vine crops like grapes and kiwi fruit, berries, vegetables and outdoor flowering and nursery crops. Crops must be able to tolerate rain falling to the ground at the valleys.	Crops like those requiring daily protection from excessive heat, cold or rain where rain needs to be collected in a gutter system.
Gutter to collect rain	No. Rainwater will fall on the ground at the valleys causing increasing soil wetness, chilling of the soil and soil erosion. RH inside will increase after rain if the roof is closed to increase temperatures.	Yes
Roof covering	150 gms/m² woven polyethylene coated on one side (500 kLy) Clear	229 gms/m² woven polyethylene coated on both sides (700 kLy) Clear or white
Typical roof covering lifespan: (depending on UV, wind and chemicals)	4 - 7 years	8 - 12 years
Closing time of roof	4 - 6 minutes depending on roof travel	2.5 minutes
Max area powered by 1 motor: hectares (acres)	0.8 (2)	0.45 (1)
Maximum wind speed assuming roof covers and walls are closed: kph (mph)	100 (60) (Based on 4m wide houses)	110 (70) - 200 (125) depending on house model
Maximum hail/snow load kg/m² (lb/ft²)	6 (1.3) (Based on a 4m wide house)	up to 240 (50)
Can support a hanging crop	No	Yes
Maximum grade variations	4%	4%
Standard house widths	4m, 4.5m, 5m (13.1ft, 14.75ft, 16ft)	Varies by house model
Future expendability in the length	No	No
Future expendability in the width	Yes	Yes
Can install layer of netting	Yes, above the roof	Yes, below the roof
Supports the installation of shade cloth	Manually movable shade cloth can be installed horizontally under the roof	Motorized or manual curtain systems can be installed under the roof
Wall coverings	Netting, motorized roll up walls	Shade cloth, insect net, roll up walls

Specifications subject to change without notice

Don't let the erratic weather beat up your crops and profits!

Use Auto-Dry™ to help you increase your profits while beating down your labor costs and chemical requirements!

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