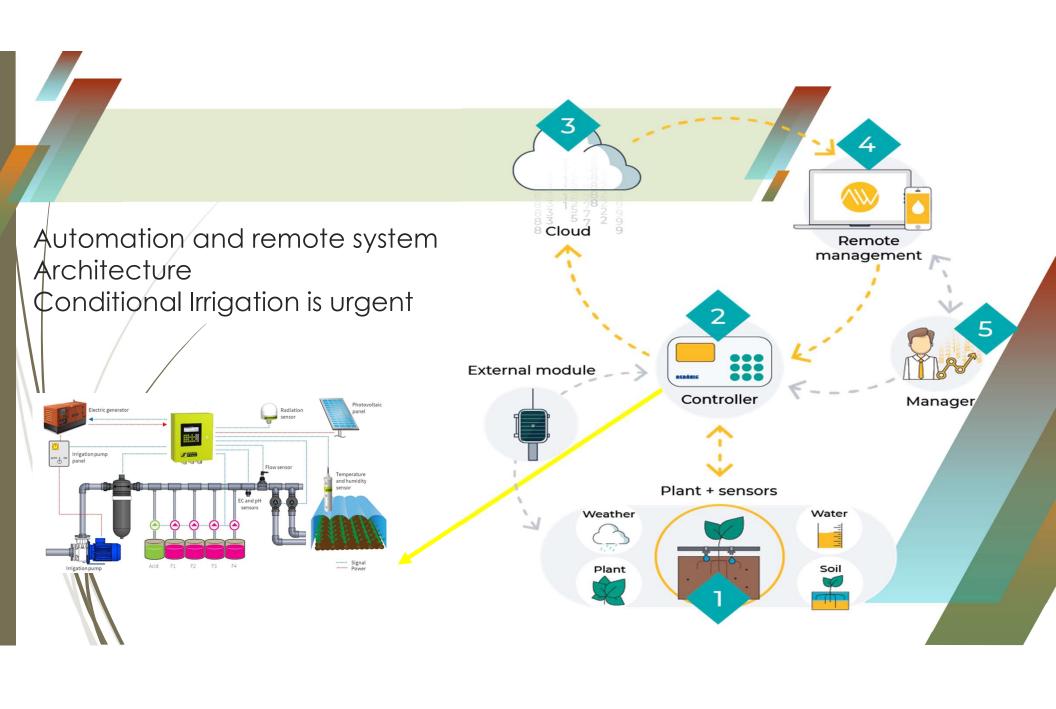


# Anti-Frost System

#### www.Proagro.ge

- David Malazonia 599102109, 599991151

October 2025



# METOS® BY PESSL INSTRUMENTS

# Temperature. Relative Humidity, Leafor wetness sensors needed

#### Leaf Wetness Sensor

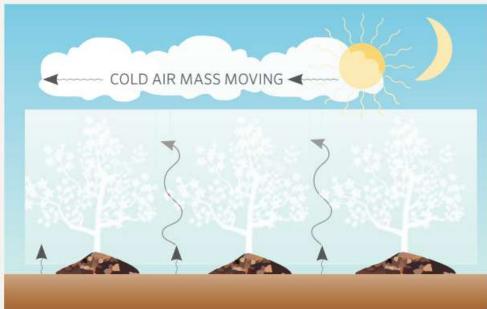


#### Weather Station



## Physical Essence





**Radiation Frost** 

**Advection Frost** 

# Early Notification System+ Conditional Irrigation System

#### Pack **AgroBee Sens Vigilancia Heladas**

Realiza un seguimiento de las condiciones para heladas y del sistema antiheladas, monitorizando variables como temperatura, humedad relativa y temperatura de bulbo húmedo.







1 módulo AgroBee-L.



1 Sensor de T/HR/Tw.



1 Detector de caudal.



VEGGA Expert gratis el primer año.

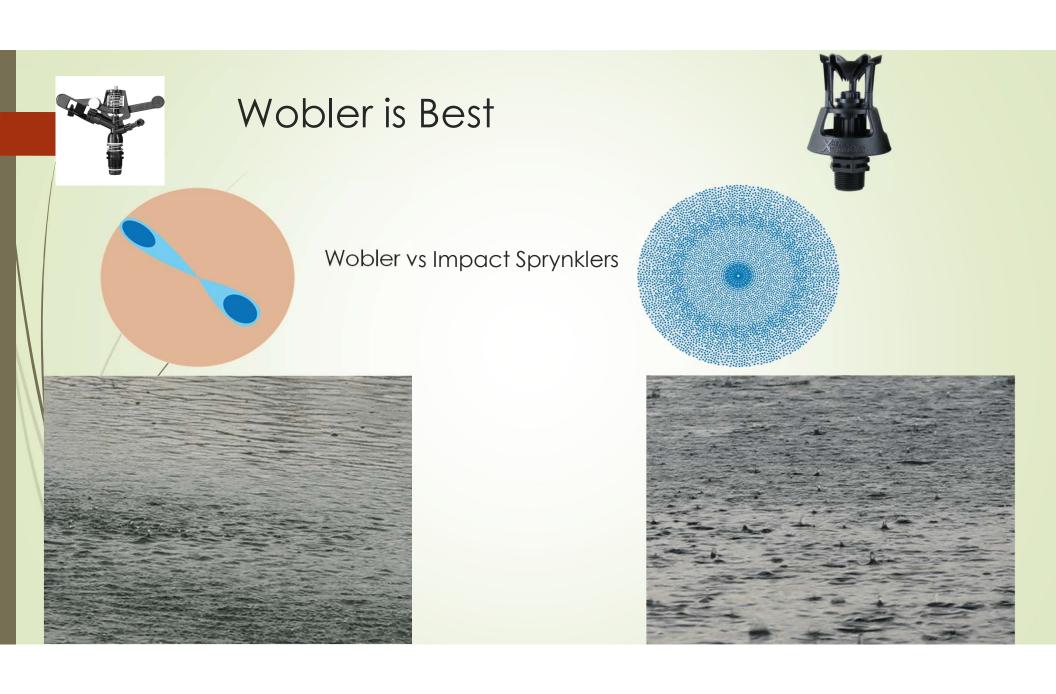
### Preserve with water Hidden Heat

- 1 g of water consists 80 Kcal of hidden heat
- Sprinkler should provide permanent water existence in garden









### Researche



Application rates for overhead sprinklers protection of grapevines based on minimum temperature and rotation rate for wind speeds of 0.0 to 0.5 m s<sup>-1</sup> (after Schultz and Lider, 1968)

TEMPERATURE	30 s ROTATION	60 s ROTATION	30 s ROTATION	60 s ROTATION
°C	mm h <sup>-1</sup>	mm h <sup>-1</sup>	litre min-1 ha-1	litre min-1 ha-1
-1.7	2.0	2.5	333	417
-3.3	2.8	3.3	467	550
-5.0	3.8	4.3	633	717

TABLE 7.8

Application rates for overhead sprinklers protection of grapevines based on minimum temperature and rotation rate for wind speeds of 0.9 to 1.4 m s<sup>-1</sup> (after Schultz and Lider, 1968)

TEMPERATURE	30 s ROTATION	60 s ROTATION	30 s ROTATION	60 s ROTATION
°C	mm h <sup>-1</sup>	mm h <sup>-1</sup>	litre min-1 ha-1	litre min-1 ha-1
-1.7	2.5	3.0	417	500
-3.3	3.3	3.8	550	633
-5.0	4.6	5.1	767	850

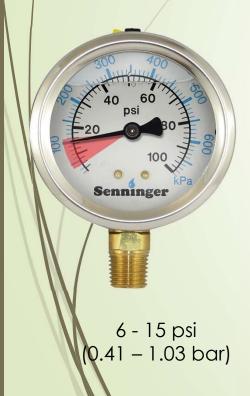
FIGURE 7.12

Tall Crops

### Low Pressure, Wind resistance

Can be used with drip irrigation pipe layout

Can be used for plant cooling in hot weather





30 - 50 psi (2.06 – 3.44 bar)



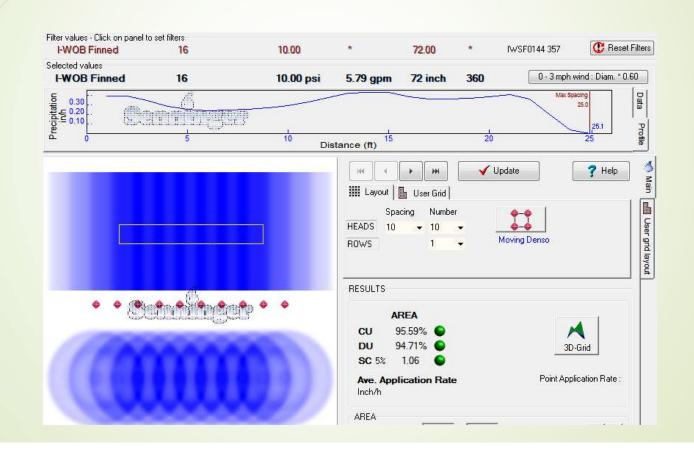
# X-Woble, Mini-Wobler, Pressure Regulators (Senninger Imc.)

Proagro is dealer for Caucasus





## Uniformity by Senninger Sofware



# Projection

Proagro will provide.

Need specific whole project design Both engineering and managerial

