Viticulture 4.0 - digitisation in the wine-growing sector @ JIDVEI

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The Tarnave wine region starts being known as Weinland.

1200

The construction of Jidvei’s symbol, the “Cetatea de Baltă” Castle.

1624

The privatization of the Jidvei State Agricultural Enterprise

1958

The Jidvei wines received the first appreciations at an international contest.

1999

The privatization of the Jidvei State Agricultural Enterprise

2018

The Jidvei Group owns four wineries with a total storage capacity of 328,000 hectoliters, with the unique Tauni Winery, the only gravitational winery in Romania and the largest one in Europe.

Family Business

Covering an area of 2,500 hectares, Jidvei’s vine plantation is the largest in Romania and the largest single-owned one in Europe.

Jidvei is the biggest producer in Romania of Protected Designation of Origin (PDO) wines and provides a varied range of products.

R&D Department is involved in many research projects at national and international level.
The 18th edition of the company’s private “Golden grape” National Folklore Festival
The current state of digital solution applied in vineyard @ JIDVEI

- DSS program for Integrate Pest Management, in connection whit 12 weather stations for forecasting
- QGIS Land Management: variety, rootstock, surface, exposition, altitude, number of plants...
- Application (mobile) for standardization and evaluation of management of technologies in real-time
    - (treatment, pruning, defoliation, ...)
    - (variety, parcel, location)
    - (manually or mechanized)
    - (workers, working time, tracking map of equipment's, quantity, salaries, fuel, products)

- Inspection Application (mobile app)
Sustainable use of plant protection products
- Damage and economic thresholds
- Based on the potential risk, it uses a low-impact active substance

BUT WHY to use digital monitoring tools ...when we have ...the classic ones

Important field data to make decisions about:
- Management of pests and diseases (precision viticulture)
- Predictive indications on possible risks
- Forecasting of yields (counting of buds, bunches)
- Other agronomic practices to be performed
- To increase the quality of the grapes

Support for georeferenced field data monitoring activities:
- Phytosanitary (specific calculators for adversity)
- Vegetative
- Productive

The system also gives the possibility to all the players in the wine supply chain to have the vineyard data available and the statistics in real time.

www.4grapes.it
Weekly reports based on our inputs: protocols for observations, processed information and sending alerts regarding diseases in the area.

Direct and fast data entry

Identification of vineyard

1. Identification of plot/vineyard

2. Select parameter

3. Insert the adversity

The average insertion time of the observation (without notes): 8”
If adversity is missing: 3”

Monitoring maps:
- monitoring summary
- identify the vineyards immediately
- yellow: not yet checked
- green: everything OK
- orange: light level
- red: more serious situation
- find the exact point of the observation

Receive notifications and reports

Weekly reports based on our inputs: protocols for observations, processed information and sending alerts regarding diseases in the area.
The observation collected with 4Grapes are stored on the Cloud - Carto software - to view them on the map.

- GIS viewer
- Thematic layers
- Various filters applicable
- Download data in .csv and .shp format

www.4grapes.it
Integration of all apps/programs used in vineyard in one program = already 80% is achieved

The current state of digital solution applied in vineyard @ JIDVEI

The challenge is...

- Big data analysis
- Standards
- Business intelligence

= TRACEABILITY
Our farmers needs

FIELD BOOK AGRO APPLICATION - FBAA

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www.bitsoftware.eu
Thank you!