

DJI agricultural plant protection drone flies into Swiss vineyards

DJI Agriculture

Speaking of Switzerland, those who are interested in the economy may think of the developed financial system and the world's top GDP per capita; those who are keen on tourism may think of the snow in the Alps and the lake and mountains of Geneva; those who are familiar with politics may think of Geneva, home to the headquarters of many international organizations, and the country's long history of armed neutrality. So, do you who love wine think of Swiss wine?



Switzerland has a long history of wine-growing grapes, which can be traced back at least to the rule of ancient Rome. Because it is located in the northern temperate zone suitable for growing grapes, the diverse topography and landforms constitute different terroirs in various regions, providing a suitable environment for the cultivation of different varieties of grapes.

Traditional manual work efficiency in grape terraces is low

Mountains and steep vineyard terraces are the main characteristics of Swiss vineyards. These vineyards make machinery unusable, so most of the garden work is done by hand, which greatly increases production costs and makes Swiss wines of high quality. At present, Switzerland has more than 14,000 hectares of grape growing area, and about 100 million liters of wine are produced every year, bringing more than 3.8 billion income to local grape growers.



However, in Harau in the northern canton of Schaffhausen, the preservation of traditional agricultural customs has also brought challenges to the efficient management of local vineyards. In order to ensure the yield, the vineyard managers will spray pesticides every season. Previously, this work was mainly carried out by hiring workers manually or using special ground spraying vehicles.

Manual work by workers is not only inefficient but also puts high demands on workers' physical strength. **Generally, 8-10 sprays are required during the grape growing season, and each operation lasts for more than 10 days.** If the spraying is not timely, the mildew of the grapes will not only affect the single-season wine production and the harvest but also affect the income of the vineyards in the next few years.



Harao is located in the northern mountains, so using ground vehicles is not the best choice. On some steep slopes, the vehicle can easily tip over, which may even threaten the driver's life.

DJI plant protection drone flies up to mountain vineyards

In 2020, after multiple rounds of comparison, local vineyards began to introduce DJI drones for management operations.

The local partner of DJI Agriculture, Remote Vision, said that the customer who uses drones to manage vineyards is a well-known young grape expert in Switzerland. In order to introduce the drone management system, he also built a special landing platform in the vineyard.



In order to comprehensively verify the spraying effect of the drone, grape experts have conducted several stringent grape spraying tests locally in conjunction with Remote Vision.

Including testing and comparison on vines of different ages and varieties, comparison with

ground machinery and manual operations, etc. UAVs finally stand out with their excellent effects.

"Today, we sprayed a lot of particularly sensitive and valuable seedlings for the vineyard, which fully demonstrates the owner's trust and recognition of drones." The person in charge of Remote Vision said that **in the application of pesticide spraying in mountain vineyards, UAVs is highly efficient, not affected by terrain, and personnel does not need to be exposed to pesticides, which is safe and reliable.**



Utilizing drone management to keep the original ecology of the vineyard to the utmost extent is a new attempt to integrate the traditional culture of local vineyards with modern technology. **This**

is also the first time that China's intelligent agricultural equipment has entered the Swiss local agricultural production field. Of course, domestic consumers may soon be able to drink Swiss wine managed by DJI drones.

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