Conference

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## How Ningxia's unique natural attributes can create sense of place in its wines

As part of the drive to elevate Ningxia's status to that of a world-class wine region, greater understanding of the terroir and best combination of grape variety and soil is an absolute necessity. **Professor Demei Li** hosted a tasting of four wines to illustrate the terroir in Ningxia and outlined the characteristics that make the region unique.

The most obvious feature of the landscape, and one that has a fundamental impact on Ningxia's ability to grow vines, is the Helan mountain range. "The mountains block out the cold air", he explained. Unlike other mountain foothills, however, Ningxia does not benefit from significant rainfall or water from snowmelt. It does, though, have a plentiful nearby source of water for irrigation - the Yellow River.

Another advantage is that it is geo-concentrated – which can help promote wine tourism for example – and is also situated in close proximity to a large city, Yinchuan with a population of around 2 million and efficient transport links. In terms of climate, the region is arid, with just 216 mm of average rainfall a year; it enjoys plentiful sunshine – 2,983 hours – and significant diurnal temperate variation of 12.6°C; and it also has 203 frost-free days. Over the year, however, there are major variations in temperature, peaking at 25°C in July. When bud-break occurs in April,

the average temperature is 10.6°C and the same level is recorded in October during the growing season. In May, at the flowering stage, temperatures rise to 16°C, but they fall to 8.4°C on average, at the end of October when the vines need to be prepared for burying. "After August and September, there is a rapid decline in temperature", pointed out Demei Li, indicating that some varieties struggle to ripen because of this. Sunshine, however, is generous, with 750 hours from August to October and many sun-filled days in May, prompting professor Li to point out that "sunshine in Ningxia during the growing season is higher than in Bordeaux".

## Emerging signs of terroir effect

Is climate change, though, about to put paid to this weather pattern? "This year, there has been a lot of rain, which has caused many issues for wine growers. There is an obvious change in the temperature with global warming", conceded



Li. Irrespective of climate change, dryness early in the season makes irrigation unavoidable, and high humidity in the air requires pre-control disease treatment. The soils, which have a high pH level of over 8, are also relatively poor and need managed fertilisation. "Low organic matter, a high pH and high salinity are all characteristics of Ningxia's soils", said Li.

Despite these common features, however, different locations across the region have different soil profiles, with alluvial sand/gravel close to the mountain and clay on the flatlands for instance. These variations obviously require further study to ascertain the most appropriate grape varieties, but are conducive to 'terroir effect'. The four wines presented by Li - HeLan Hong, Lux Regis, Helan QingXue and Li Lan from four different sites but a similar backbone of Cabernet-Sauvignon - revealed not only emerging signs of this, but also illustrated that Ningxia is capable of producing world-class wines with affordable price tags, ranging from 98 to 128 yuan a bottle. "Ningxia can produce competitively-priced wines suitable for exports", concluded the globally-renowned expert.

