

WINTER

THE AROSA MOUNTAIN
LANDSCAPE –
SNOW GUARANTEED,
THEN AS NOW





The unsung heroes of the slopes

Who is not thrilled to see slowly moving points of light all over the ski area in the evening shortly before sunset? While the guests return to the hotel around 5 p.m. after an exciting day of skiing, the piste preparation team led by Walter “Wadi” Tschanz gets to work, launching eleven machines from their base at the mid-station. Of these, ten machines prepare the slopes in the Arosa ski area and one machine grooms the hiking trails from the mid-station uphill for the coming day. The hiking trails below the mid-station and the cross-country ski trails, however, are maintained by the municipality. A wonderful tradition: all the drivers meet for dinner – depending on the location – either at the Hotel Hold or at the Sattelhütte. Anyone who is out and about in Innerarosa in the evening can marvel at the fleet of large machines parked next to the restaurant.

Fresh snow – a particular challenge

When there is fresh snow, the 16 snow groomers operate to a completely different rhythm. In that case, they start at 2.00 a.m. and work until half past eight in the morning, because all the slopes have to be ready then, and the drivers can end the intense night with coffee and croissants together in the Brüggerstube. People may wonder why, when there is fresh snow, the first “little mounds” form on the slope after just a few descents. This has to do with the density of the snow. A complex material is formed when the crystals accumulate on the ground during the snowfall.

At first, it is soft and loose, but then the ice crystals merge at their points of contact and sinter. In the process, they form a cohesive porous structure, similar to a sponge made of ice, which does not remain unchanged for long. Since snow is so close to its melting temperature (physically speaking, it is a “hot” material), it is constantly changing. Such transformation is called metamorphosis. Along with the structure, the material properties of snow also change continuously, such as its density. While a cubic metre of fresh snow contains so much air that it weighs just between 50 and 100 kilograms, older, sintered snow can weigh as much as 400 kilograms. It sometimes takes a while after fresh snow nights for the ice crystals to consolidate.

The drivers of the snow groomers work the same piste area throughout the entire winter season. So, after some time, they know the conditions and also the pitfalls of the respective area. When their shift is over, they help each other so that they can all return to the base together at around 2.00 a.m. Snow groomer drivers new to the Arosa ski area begin their work operating a regular snow groomer. Meanwhile, the experienced drivers operate machines equipped with a winch. By now, more than half of the snow groomers in Arosa have a winch. As the winch is secured to an anchor point with a 1'400 metre long steel cable, even difficult areas, such as slopes on the Weisshorn, can be tackled. There are around 40 to 50 anchor points for the winches in the entire Arosa ski area.

Preparations start in the summer

The team around “Wadi” Tschanz gets to work on preparing the pistes as early as the summer. They use a drone to measure the ski area with a laser, thus obtaining the exact survey data that they will have to rely on in the winter. The state-of-the-art screens in the snow groomers accurately display the different profiles of the terrain based on the data collected during the summer.

High-precision technology for optimal snow distribution

High-precision sensors measure the snow depth under the vehicle, on the blade and, on the latest machines, even up to 50 metres in front of the vehicle, showing the information on the vehicle display. This allows the driver to identify areas with little snow and snow reserves based on different colours on the display and to move the snow systematically. That creates an even and stable piste – even when there is little snow. In addition, the snow depth measurement gives the driver orientation in poor visibility conditions and thus plays an important role in safety.

These days, all slopes are freshly groomed every day, but it was very different 30 years ago. Back in the day, the black slopes were only groomed once a week.

Both the drivers and the mechanics work tirelessly in the winter. On average, a snow groomer clocks a

total of 1'030 hours each winter. If a machine breaks down at night, it is checked first thing the next morning at 7.00 a.m. to see what needs to be repaired. The mechanics are highly trained to have the vehicles ready for use again within the shortest possible time. This includes a quick damage assessment as well as the procurement of spare parts, which can be obtained quickly thanks to the service centre in Chur. Summer is also a busy time for the mechanics, as all snow groomers are overhauled between May and October.

Anyone who thinks that our unsung heroes are on holiday for the whole summer is mistaken: the groomers are busy with other jobs. Patrick operates an excavator, Sämi is a mechanic, and Bruno switches from the snow groomer to other large machines while doing contracting work. In November, just in time for the winter season, everyone gathers again at the base near the mid-station to take up winter service and ensure that guests have unforgettable days in the snow.



PISTE GROOMING THEN AND NOW