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Tainted waters

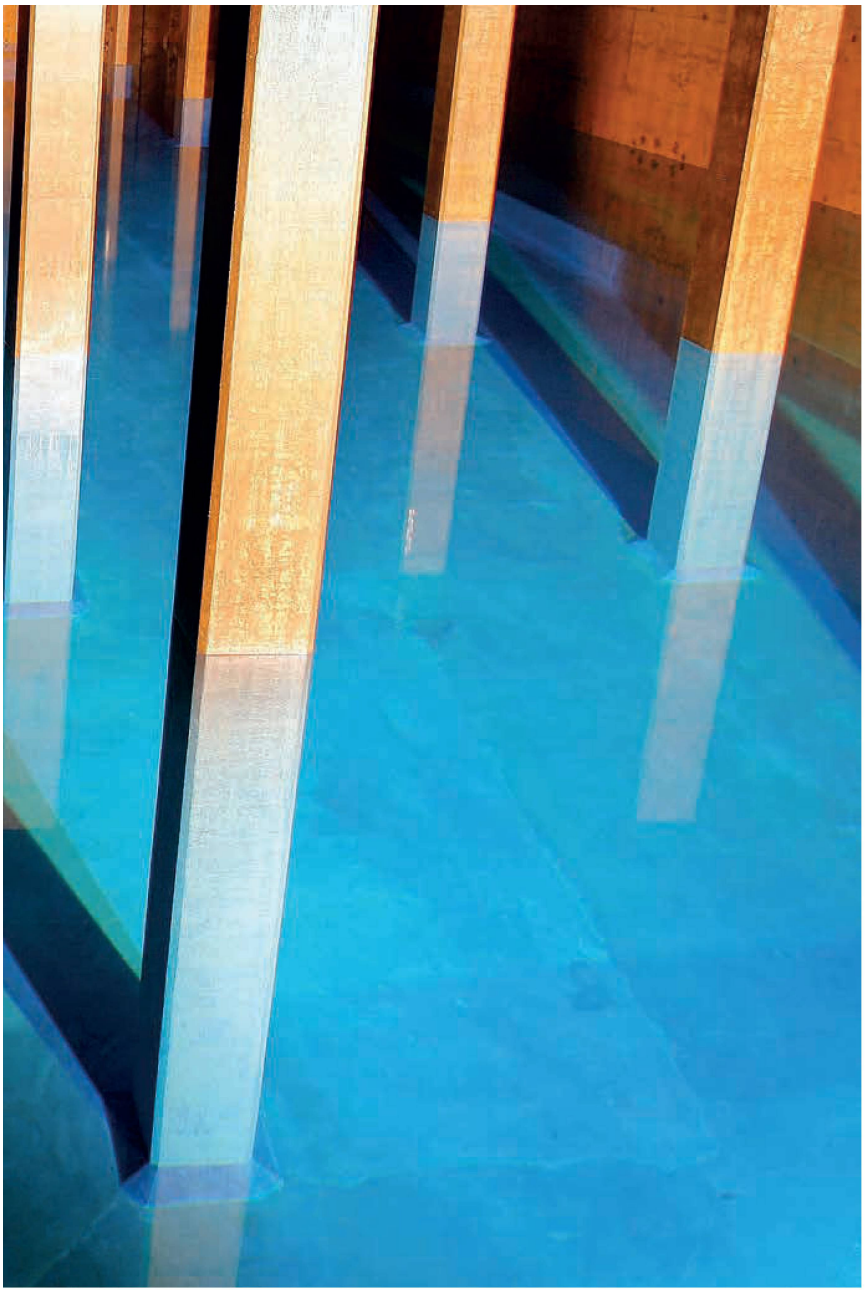
Switzerland has huge water reserves. Every household in the country can access clean drinking water at all times. Or can they? Not all is as it seems.

THEODORA PETER

Water flows in abundance in Switzerland – a place where natural resources are otherwise scarce. There is a reason why our country is known as the reservoir of Europe. Not only do the Rhine and Rhône begin their journey here to the Atlantic and Mediterranean respectively, but Swiss streams and rivers also feed the major European rivers Po, Danube and Adige. Switzerland's enormous reserves of "the blue gold" extend to lakes and groundwater too. Climate change has brought drier summers, causing glaciers to melt and reducing local springs to a mere trickle. Yet rain will continue to be Switzerland's most important water resource, feeding the country's groundwater particularly during the winter months. On average, 60 billion cubic metres of precious water falls from the sky each year in Switzerland – equal to the volume of Lake Constance and Lake Lucerne put together. Switzerland looks unlikely to run dry any time soon. However, the quality of Swiss water is another issue altogether.

Pesticide by-products in drinking water

Some 80 per cent of Swiss drinking water comes from springs and groundwater, 20 per cent from lakes.



A subterranean aquatic temple – the Lyren drinking water reservoir in Zurich-Altstetten.
Photo: Keystone

Groundwater is at its most abundant under the valley floors and fertile plains of the Central Plateau – the epicentre of Swiss vegetable and cereal cultivation. Pesticides have been used for decades in this intensively farmed region, and not without controversy. The latest furore surrounds the fungicide chlorothalonil – an active ingredient in crop protection products used on farmland since the 1970s to prevent fungus.

Chlorothalonil was banned at the end of 2019, after the federal government determined that the substance had a potentially damaging effect on health. Manufacturer Syngenta vehemently disputes the assertion that the substance is probably carcinogenic. The agrochemical company took legal action forcing the Federal Office for Agriculture to remove this claim from its website until the Federal Supreme Court had given its definitive judgement on the matter.

However, the chlorothalonil ban is not the end of the problem, because by-products of the fungicide, known as metabolites, will continue to pollute the groundwater for years to come. The maximum legal value for toxicologically relevant substances such as these in Swiss drinking water is 0.1 micrograms per litre. Yet this limit is exceeded in intensively farmed parts of the Central Plateau, such as the canton of Solothurn: "There are excess metabolites in nearly all water catchments situated in the valley plains – up to 20 times higher than the maximum acceptable limit in some cases," says Martin Würsten, the former head of Solothurn's environmental office. Since retiring, Würsten has been playing an active role in 4aqua – a group comprising dozens of experts and scientists who, in their own words, wish to give water a "political voice grounded in facts".

One million inhabitants affected

Würsten believes this voice has not been given enough attention in recent decades. "While we have made leaps and bounds in waste water purification, we have hardly made any progress in reducing the significant levels of water pollution caused by agriculture over the past 20 years," he says. Würsten is also concerned that nowhere near all pesticides used on fields have been studied as closely as chlorothalonil was recently. In his view, "Something may not be seen as a health risk today, but it could well be in future". This is why 4aqua wants the approval of synthetic pesticides to be subject to greater transparency and scrutiny. Some 370 substances are currently in use in Switzerland.

Higher-than-recommended levels of pesticide have been found in the drinking water supplies of around one million people in the Central Plateau region. The government has given drinking water suppliers a two-year deadline to bring chlorothalonil levels below the per-

Both initiatives specifically take aim at agriculture and its use of pesticides. Crop production would fall by at least 30 per cent without pesticides, says the Swiss Farmers' Union. Photo: Keystone

mitted threshold. One way to reduce the chlorothalonil is to dilute it with uncontaminated water, while a water cooperative in the Bernese Seeland region aims to eliminate it using an innovative filter. This only goes part of the way towards solving this serious problem, says Würsten, because it works against the principle that groundwater in Switzerland should not undergo complex treatment processes.

Voters to decide on two initiatives

Würsten and his colleagues from the 4aqua group therefore support the Clean Drinking Water initiative that will be put to the people on 13 June. According to the proposal, submitted by a non-party pressure group, government subsidies should in future only go to farmers who refrain from using pesticides and administering antibiotics to livestock. Voters in June will also decide on an initiative called "For a Switzerland free of synthetic pesticides", which wants to ban the use of pesticides in Switzerland completely. The ban would also apply to the import of food produced using pesticides.

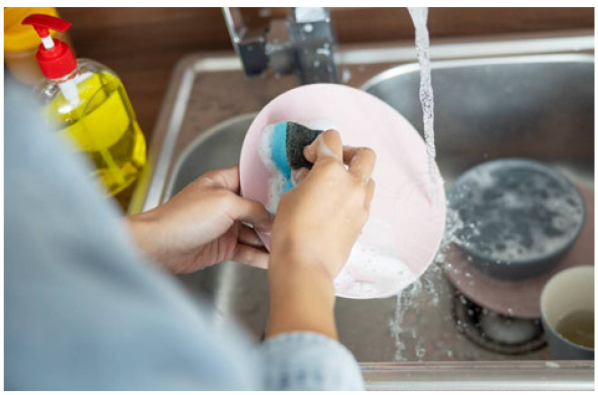
According to the Swiss Farmers' Union (SFU), both initiatives go way too far. The SFU says that they would make domestic and regional farming more difficult if not impossible. If farmers were forced to stop using pesticides altogether, production would fall by at least 30 per cent. The SFU even warns that Swiss crops like potato, rapeseed, and sugar beet could almost become a thing of the past. Not all farmers share these fears. The federation of Swiss organic farmers, Bio Suisse, supports the pesticide initiative because it says the initiative reflects the core values of organic farming. It is more sceptical of the Clean Drinking Water initiative, which also states that farmers should only be permitted to keep as many animals as they can feed with self-produced fodder. Small organic producers could suffer as a result, says Bio Suisse.

The Federal Council and a majority in parliament recommend that voters reject both initiatives. In their view, the initiatives are damaging to agriculture and jeopardise Switzerland's food security. The government has set out a new, greener agricultural policy to tackle pesticides from 2022. However, the Council of States blocked the strategy and prefers a softly-softly approach to delivering better groundwater protection, thereby seeking to take the wind out of the sails of the initiatives ahead of an emotive voting campaign. In any case, the votes taking place on 13 June already look like a referendum on the future of Swiss agriculture, regardless of whether Swiss drinking water is clean or not.

Clean Drinking Water initiative:
https://www.initiative-sauberes-trinkwasser.ch/

Pesticide initiative:
https://lebenstattgift.ch/

Campaign opposing both initiatives:
https://www.extreme-agrarinitiativen-nein.ch/



Our daily water

One hundred and forty-two litres. This is the average volume of drinking water that a single-person household in Switzerland consumes per day – of which more than half is used for showering, bathing, and flushing the toilet. Total per capita water consumption – encompassing the agricultural, industrial and commercial sectors – has been falling steadily over the past decades: from 500 litres per person per day in the 1970s, to around 300 litres today. Water-saving household appliances have played a role in this regard, as has the relocation of manufacturing facilities to other countries. Swiss water companies supply around a billion cubic metres of water per year. (TP)