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TEA

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Other than plain water, tea is the world's most popular drink — more than two billion cups are consumed every day. For the thousands of years since the tea plant, *Camellia sinensis*, was first cultivated in China, people have sipped an infusion of its leaves for stimulation, relaxation and aspirations of achieving good health.

Despite tea's ubiquity in ancient and modern societies, the history of the tea plant's domestication is not entirely clear. Thanks to recent sequencing of the *C. sinensis* genome, the investigation by researchers of tea's domestic evolution is being seen in a new light. Genetic information, combined with evidence from historical texts and archaeology, could lead to hardier, better-quality plants (see page S2).

Tea growers are having to contend with shifting environmental conditions. Global climate change is altering temperatures and rainfall patterns, which, in turn, are affecting where and how well tea plants grow — and changing tea's flavour and potential health effects (S10). Meanwhile, scientists are modifying the tea plant's DNA to improve yield and tailor the components of a cup of tea (S12).

Research is starting to back up what was considered only folk wisdom about tea's health benefits — particularly with regard to tea's potential for preventing cancer (S6) and boosting mood (S8). Nanomaterials made from tea-derived compounds could aid medical imaging (S14). Although tea science is advancing rapidly, flaws in its research culture could imperil progress. In particular, argues one plant geneticist who studies tea, the world's top tea-producing countries need to open up their data so that fresh ideas can take root.

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Herb Brody
Chief supplements editor

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