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Few crops are as venerable or as controversial as cannabis. Cultivated for millennia for materials, food and oil, it has largely been excluded from research over the past century because of its well-known psychoactive effects. But the herb is cautiously being re-admitted into legitimacy, spurred by rising claims of its medical benefits. Many governments are allowing wider access to cannabis — with some jurisdictions heading towards full legalization.

The laws might be changing, but research into cannabis has been stifled by years of prohibition and misconceptions. Most people have heard of tetrahydrocannabinol or THC, the psychoactive compound that gives recreational users their high, but few are aware of the hundreds of other chemicals in the plant (see page S2). Many of these cannabinoids are under investigation as pharmaceutical products (S6).

The first breakthroughs in cannabinoid research came from Israel in the 1960s (S10), and the country continues to attract scientists and technology firms from around the world to study the plant and conduct medical marijuana clinical trials (S12).

Yet cannabis researchers still face many hurdles (S18). Botanists, for example, are undecided about how many species of cannabis there are, and their evolutionary relationships (S4). Governments could do more to help stimulate research (S9), particularly important if authorities are to communicate the risks of cannabis use, including whether it can cause schizophrenia or merely speed up its inevitable onset in people predisposed to the condition (S14). Until researchers fill these knowledge gaps, there are plenty of ‘cannabis cowboys’ ready to ride into the breach and peddle their own wares to an eager — and desperate — patient population (S15).

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Michelle Grayson

Senior editor, supplements

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