

Workshop on industrial hemp

18 January 2023

Palais des Nations, Geneva, Switzerland

A plant to be rediscovered

Despite a history, over several millennia, of industrial and medicinal applications, and despite the recent developments in international treaties and national laws, industrial hemp is still negatively connotated. Such connotation is due in part to confusion about the botanical characteristics and chemotype of the plant. Industrial hemp -or simply hemp- is the commonly used term for non-intoxicant plant varieties belonging to the so-called *Cannabis* L. genus. The international industrial hemp sector defines hemp as “a *Cannabis sativa* L. (*C. sativa* L.) plant – or any part of the plant – in which the concentration of the secondary compound tetrahydrocannabinol (THC) in the flowering tops and leaves is less than the regulated maximum level, as established by authorities having jurisdiction.” A clear identification of hemp is necessary to appreciate fully the multiplicity of its industrial, agricultural and agronomic uses.

A plant with universal agricultural potential

The geographical and ecological range of hemp plants is broad as compared to most crops. They can be successfully grown on land where other crops cannot. The best climate for growing hemp is found in most parts of the world as it tolerates a variety of climates. Indeed, cultivated varieties/cultivars growing outdoors are found on every continent, except Antarctica, in a wide range of environments, from sub-arctic to temperate to tropical, and from sea level to altitudes of over 3,000 metres in the Himalayas. Wild or feral (i.e. domesticated plants that again became wild) populations are also found as far north as the edge of the Arctic Circle in Eurasia.



A plant with multiple uses and properties

All parts of a hemp plant can be valorized and have numerous uses. From the roots to the flowers and fruits, through the stem and leaves, they have medical, industrial, or nutritional utility.

The hemp plant is easy to work with compared to other crops. Because of its versatility and its functional characteristics, it is used by the hemp market for a vast array of biobased products, such as nonwoven textiles, construction materials, high quality foods and composites for the car industry, to name but a few. Nine submarkets have been identified: agriculture, textiles, recycling, automotive, furniture, food and beverages, paper, construction materials and personal care. Traditionally, hemp has been grown for either its fibre or seeds. Today, it is grown as a dual or triple purpose crop, harvested mainly for its stalks and seeds.

Medical uses involve essentially the flowering and fruiting tops, seeds and sometimes the roots. An increasing number of clinical studies have investigated anecdotal uses of psychoactive but non-psychotropic cannabinoids like cannabidiol (CBD) to treat various medical conditions. In the 1950s, the first medical application of CBD identified was its antibacterial effect against gram-positive microorganisms. The medical literature has explored several potential therapeutic applications of CBD for various diseases and altered conditions, such as depression, multiple sclerosis, pain, inflammation.

Hemp cultivation also entails multiple environmental benefits. Its processing generates zero waste as all parts of the plant can be used or further transformed. It also helps to regenerate soils and mitigate the effects of climate change by capturing non-negligible amounts of carbon dioxide.

A plant with strong economic potential

There are currently about 40 countries producing raw/semi-processed hemp. China has always been the leading producer of hemp, primarily for its fibre. Other important historical producers have been essentially European countries such as France. However, Canada and the United States of America are becoming large producers with a growing influence on international markets.

The number of hemp seed-producing countries (14 to 16) appears to be about half the number producing hemp fibres (28 to 30). The evolution of hemp seed production since 1961 differs significantly from that of hemp fibre production. While world production of Hemp fibre collapsed at the beginning of the 1980s, world production of hemp seeds fluctuated between 100,000 and 150,000 tons, with historical lows below 70,000 tons during the 1989–1992 and 2010–2011 periods.

Information about hemp derivatives production remains scant. The exponential growth of the market for CBD products is hardly reported in official statistics. Private estimates suggest that the global CBD market size was valued at \$2.8 billion in 2020. Combining various sources, overall production value was estimated to about \$5 billion in 2020 and is projected to grow fourfold by 2027.

Some missing trade

Due to a narrow set of hemp products covered by international trade statistics, recorded trade flows do not fully reflect the true size of the global hemp market. The value of trade reported in international statistics amounted to only US42 million in 2020. If trade information as reported in national statistics were to be included, the value of imports would jump to about \$291 million. But even this could be considered an underestimation. The figures would further increase manifold if trade in CBD hemp products were to be included. A clear effort is urgently needed to include a more representative set of hemp-related products in international product classifications. Priority should be given to seeds and oils.

Some escalation in tariffs and non-tariff measures

In general, trade flows of hemp products face relatively low tariffs compared with other agricultural products. Some tariff escalation can be observed in most importing countries, with hemp yarn facing higher tariffs relative to raw or semi-processed hemp products. However, a full appreciation of prevailing international market access conditions must also take into account the incidence and prevalence of nontariff measures (NTMs).

Available information reveals that such measures are systematically imposed on imports but may also be imposed on exports. Some of these measures can have a potentially strong restrictive impact on trade flows and can involve some laboratory testing. There is also some escalation in the number of applied measures. For instance, the number of different types of measures imposed worldwide on both exports and imports of hemp yarn is twice as large as that imposed on exports and imports of raw or semi-processed products. The cultivation of hemp for medical purposes is subject to strict regulations and control systems to ensure that required quality standards and particularly phytocannabinoid content are respected.

How to fully exploit potentialities ?

A clarification of the legal status of hemp with respect to that of intoxicant cannabis substances would be the first step needed by governments.

A precise understanding of production constraints imposed by regulatory frameworks in potential destination markets would also be necessary in order to identify opportunities.

Owing to its botanical characteristics, a whole-plant approach should be considered as a first-best strategy in most parts of the world. This is all the more desirable because of the still relatively small size of hemp markets and the economic constraints inherent in such markets.

Regional cooperation may be a strategy for developing countries with a view to establishing viable and sustainable value chains based on a whole-plant approach.

The definition and adoption of quality standards may ease access to international markets, on the one hand, and promote the production of quality products, even for domestic markets, on the other.

Workshop on industrial hemp

The UNCTAD Commodities Branch has recently produced a report on industrial hemp¹ that will provide the background material for a workshop² on the ecological properties and economic potential of this commodity on 18 January 2023, in the Palais des Nations, Geneva. National experiences will also be shared on the development of an industrial hemp value chain.

Agenda

08.00 - 10.00 Badge collection for in person registered participants

10.00 - 10.30 Opening remarks

10.30 – 13.00 Hemp in modern times

The session will discuss the botanical characteristics, environmental properties, and uses of industrial hemp.

13.00 - 15.00 Lunch break

15.00 - 17.30 Hemp market potential and opportunities

Based on practical experiences from various regions in the world, the session will discuss the market potential of industrial hemp and the new opportunities for growers brought by recent regulatory developments in several countries.

17.30 - 17.45 Conclusions

17.45 - 18.00 Closing remarks

¹ https://unctad.org/system/files/official-document/ditccom2022d1_en.pdf

² <https://unctad.org/meeting/workshop-industrial-hemp>

Practical information

Programme

The detailed programme of the workshop is available at <https://unctad.org/meeting/workshop-industrial-hemp>.

Venue

The workshop will be held in room XXI of the Palais des Nations, Geneva, Switzerland. It will benefit of simultaneous interpretation in English and French, and will also be held online (link will be provided by email one day before the event to registered participants).

Participation

This workshop is open to all member States of UNCTAD. Other organizations, including specialized agencies, intergovernmental bodies and non-governmental organizations in the general and special categories, as well as academia and the private sector, may participate as observers.

Experts will participate in the workshop in their personal capacities and are expected to have proven expertise in the subject matter. They may be selected from government ministries such as those dealing with trade, industry, agriculture, and may also be selected from the private sector, including representatives of producer associations or cooperatives, and non-governmental organizations.

Registration

Online registration is mandatory for all those wishing to attend the meeting and is required to be included in the list of participants. Please register for this session at <https://unctad.org/meeting/workshop-industrial-hemp>. Registration requires uploading an official letter of nomination to represent an organization at this workshop. For government representatives, a note verbale or an email from the permanent mission in Geneva will suffice.

Contacts

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