# Industrial hemp - Facts

- Industrial hemp was widely cultivated in Europe in the mid-16th Century for food (porridge), and for fiber. The original use of industrial hemp in North America is attributed to Puritans in New England who applied the fiber to the production of cloth and household fabric. Strong demand for cordage and sailcloth in North America during the mid-19th century peaked U.S. industrial hemp production at about 7,000 tons

- World War II prompted a USDA Commodity Credit Corporation emergency program (1943 and1944) to finance the production of industrial hemp for seed and fiber. Under this program, Production increased to 12,450 tons of processed fiber off about 30,000 acres in 1943 and then declined to 4,950 tons off about 11,000 acres in 1944.

- Following the war, brought an end to the industrial hemp production in the U.S. Regulation of Cannabis was transferred to the Drug Enforcement Agency and the cultivation of industrial hemp remains illegal in the U.S. today. However, the American Farm Bureau changed its position to supporting research and domestic cultivation of industrial hemp in 1999.

- The distinction between industrial hemp and marijuana is typically made on the content of THC (tetrahydrocannabinol), which was first isolated in 1964:
  - A level of about 1% THC is considered the threshold for a psychoactive effect in humans
  - Industrial hemp is associated with those cultivars containing less than 0.3% THC
  - Marijuana cultivars typically contain 3-15% THC

- Industrial hemp is a very cost effective and environmentally friendly agricultural crop. Industrial hemp requires little or no pesticides as it is naturally pest resistant. Industrial hemp is also a natural herbicide to smother weeds when grown at a density suitable for producing high-quality bast fiber. Its deep root system is also very beneficial in preventing erosion, cleaning the ground, providing a disease break, and helping the soil structure by aerating the soil for future crops when it is grown in rotation with other crops. Finally, it absorbs carbon dioxide five (5) times more efficiently than the same acreage of forest

- The industrial hemp market is typically divided into fiber production and seed production. China produces about 40% of the world's fiber supply; and about 80% of the world's seed supply. China's objective is to increase China's current 50,000 acres of industrial hemp production to 1+ million acres. This would reduce their textile industry's dependence on cotton; and in the process, free large areas of cotton-growing land for food production needed to support China's population.

- Currently, thirty-two countries, including Canada, Great Britain, France and China, allow farmers to grow industrial hemp. The primary markets for European produced industrial hemp are:
  - Specialty pulp for cigarette paper, bank notes and similar applications that require its high tear strength and high wet strength
  - Developing composite materials market for automotive applications
  - Developing construction and thermal insulation applications
  - Clothing, body care products, and foods.

- Canada can provide a benchmark for what a U S regulatory system would require. The Industrial hemp Regulations (IHR) were developed in 1998 as part of Canada's Controlled Drugs and Substances Act (CDSA) to allow for strict regulation of industrial hemp production and make a clear distinction between industrial hemp and other forms of *Cannabis*. Every person legally cultivating industrial hemp must submit samples of their crop to a licensed and accredited laboratory to ensure that the THC level is at or below 0.3%

- Numerous automotive manufacturers are using industrial hemp in the production of vehicles to industrial hemp's light weight, strength, and recycling capabilities. Attached is a chart of auto manufactures utilizing industrial hemp.

- In the United States, industrial hemp can be utilized to revitalize areas of the country, which have lost jobs due to Tobacco, Textiles, and Furniture Manufacturing. The North American Hemp market is current estimated to be over $360 Million in annual sales with annual sales growing 10% per year.

- In order for Industrial Hemp to be grown and subsequently produced in the United States, Congress and President would have to pass a law transferring industrial hemp regulation from the. U.S. Drug Enforcement Administration to the U.S. Department of Agriculture.

TABLE 3. Use of natural fibres for serial parts in the automotive industry (1997-2001)

| Manufacturers/Customers | Model / Application (dependent on model) |
|---|---|
| Audi | TT, A2, A3, A4, A4 Avant (1997), A4 Variant (1997), A6, A8 (1997), Roadster, Coupe<br>Seat back, side and back door<br>panels, parcel tray, boot lining, rear flap lining, rear storage panel, spare tire lining |
| BMW | 3, 5 and 7 Series and others<br>Door inserts/door panels, headliner panel, boot lining, seat back |
| Citroen | C4 (2001)<br>Door inserts |
| DaimlerChrysler | A-Klasse, C-Klasse, E-Klasse, S-Klasse<br>Door inserts,<br>windshield/dashboard, business table, column cover |
| Fiat | Punto, Brava, Marea, Alfa Romeo 146, 156, Sportwagon |
| Ford | Mondeo CD 162 (1997), Cougar (1998), Mondeo (2000), Focus<br>Door inserts, B-column cover, parcel tray, in the future also motor protection (cover undershield) |
| MAN | Bus (1997)<br>Headliner panel |
| Mitsubishi | Miscellaneous models (since 1997) |
| Nissan | Miscellaneous models |
| Opel | Astra, Vectra, Zafira<br>Headliner panel, door inserts, column cover, instrument panel, rear shelf panel |
| Peugeot | New model 406 |
| Renault | Clio, Twingo |
| Rover | Rover 2000 and others<br>insulation, rear storage panel |
| Saab | Coupe (1998)<br>Door inserts |
| SEAT | Door inserts, seat backs |
| Toyota | Miscellaneous models |
| Volkswagen | Golf A4, Golf 4 Variant (1998), Passat Variant, BoraDoor inserts, seat backs , rear flap lining, parcel tray |
| Volvo | C70, V70, Coupe (1998)<br>Door inserts, parcel tray |

(2,3,4,6,7)