Papaver Somniferum Encyclopedia Article

Papaver Somniferum

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Papaver Somniferum

Poppy plants, of the genus *Papaver*, are long-stalked flowers of varying colors encompassing approximately 140 species. Of the many types of poppy plants, *Papaver somniferum* is known as the OPIUM poppy. It has white or blue-purple flowers and is widely cultivated in Asia, India, and Turkey, which supply much of the world's opium. Cultivation requires a tropical or subtropical climate without excessive rainfall. In the Northern Hemisphere, the plant flowers in late spring, after which the petals fall in a short time. This is followed by the rapid growth of the capsules (the plant's ovaries) for about two weeks. Incisions are carefully made in the capsule to obtain the milky juice, which is then dried as a gum that yields opium. The yield of opium can vary widely, but is typically about five pounds (2.25 kilograms) per acre.

The opium serves as a source of MORPHINE, CODEINE, and thebaine and is widely used in the production of important painkillers (ANALGESICS).

Typically, morphine comprises 10 percent of opium and most of the morphine used in medicine is obtained by purifying opium.

Illicit uses of opium are also widespread. In many parts of the world, opium is still smoked or eaten. Morphine extracted from opium may in turn be converted to HEROIN in clandestine laboratories. Heroin is the major opioid used illicitly in the United States. To prevent the collection and sale of opium for illicit conversion to heroin, new ways of processing the poppy plant have been developed. The most widely used consists of mowing the poppy fields before the pods are ripe enough to yield opium. The mowed stems, immature pods, and plant matter, referred to collectively as poppy "straw," are then shipped in bulk to large processing centers where the active ALKALOIDS are extracted under careful supervision.

Other species of *Papaver* also contain alkaloids that can be converted into potent opioids. For example, *Papaver bractiatum* contains high concentrations of thebaine, which can be used to produce compounds several hundred times more potent than morphine.

See Also

Asia, Drug Use In; Crop-Control Policies; Golden Triangle as Drug Source; International Drug Supply Systems; Pain, Drugs Used For; Opioids and Opioid Control)

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