

As Precious as Gold

Cordyceps sinensis

冬蟲夏草 - 貴比黃金



Cordyceps sinensis 冬蟲夏草

During a narrow four-week window between May and June, villagers harvest the highest-grade, wild *Cordyceps sinensis* (caterpillar mushrooms) from the high plateaus of Tibet, Nepal and Bhutan. Highly regarded in Chinese Traditional Medicine, *Cordyceps sinensis* has been harvested from this region of the world for millennia. And, as the world-wide demand for cordyceps has grown, its price has increased dramatically! The price of *Cordyceps sinensis* rose approximately 900% between 1998 and 2008!

Just to put it into perspective, an average villager finds 5 to 10 individual mushrooms a day. Twenty in one day is considered very good. Official Tibetan statistics reflect an average collection rate of 10 mushrooms per person per day. The average annual harvest of about 5,000 kg (11,000 lbs) represents about 12 million mushrooms collected by some 35,000 people over approximately 30 days. A typical day's harvest of 5-10 bu (short for 'yartsa gunbu' as cordyceps is called in Tibet) represents three to seven times the average daily wages in the region, and an unusually good daily harvest could produce income equivalent to a month's wages.

As of Oct 5, 2010, newspapers in Singapore were reporting the price of Cordyceps at approximately \$1,290 (\$1,004 US) for as little as 37.5 grams (1.32 oz). As a comparison, gold is trading at around \$1,360 US per ounce as this article is written.

在五到六月期間有短短的四個星期，居住在中國西藏、尼泊爾和不丹高原的村民，會去採集極品草藥 - 野生冬蟲夏草(蟲草真菌)。冬蟲夏草在傳統中醫中極受尊寵，所以幾個世紀來，人們一直從世上這個獨特的角落採收冬蟲夏草。而今，由於全球對冬蟲夏草的需求量在不斷攀升，冬蟲夏草的價格在以驚人的速度飛漲！在1998到2008年之間，冬蟲夏草的價格已大約上漲了900%！



讓我們來縱觀一下冬蟲夏草的採集狀況吧：一般情況下，一位村民每天會採到5至10枝冬蟲夏草，如果某天某人採到了20枝，那就是極其稀有的成積了。西藏官方的統計結果顯示，人們採收冬蟲夏草的平均量是每人每天10枝，而每年收穫冬蟲夏草的平均量約為5,000公斤(11,000磅)，那也就是說在30天左右要有約35,000人去採回大概一千兩百萬枝的冬蟲夏草。通常，人們每天能採到5 - 10枝bu(西藏人將冬蟲夏草稱為yartsa gunbu, bu則為簡稱)，這樣的日收穫成果是當地日常收穫量的三到七倍，如果偶爾有一次罕見的成積，那麼這一天的收入簡直就可與整個月份的業績相媲美。

2010年10月5日，新加坡的一份報紙報道了冬蟲夏草的價格，僅僅37.5克(1.32盎司)就高達約\$1,290新元(\$1,004美元)。相比之下，本文截稿時的黃金交易價格約為每盎司\$1,360美元。

為什麼冬蟲夏草特別珍貴？

冬蟲夏草中含有多種核苷 - 其中主要是腺嘌呤、腺苷、尿嘧啶、尿苷、胍、鳥苷、次黃嘌呤、肌核苷、胸腺

What Makes Cordyceps So Valuable?

Cordyceps contains nucleosides—primarily adenine, adenosine, uracil, uridine, guanidine, guanosine, hypoxanthine, inosine, thymine, thymidine, and deoxyuridine. Fresh, natural cordyceps has a lower content of nucleosides than dry, processed or cultured cordyceps. Nucleosides are the biochemical precursors of nucleotides, the molecular building blocks of the nucleic acids DNA and RNA. They are used in many antibiotics, and scientists have discovered how to mimic them to produce antiretroviral medications.

In addition, wild *Cordyceps sinensis* contains proteins, peptides, all essential amino acids, and polyamines; saccharides and sugar derivatives; sterols; fatty acids and other organic acids; vitamins (including B₁, B₂, B₁₂, E and K); and inorganic elements. Using thin layer and gas chromatography, high-performance liquid chromatography, and capillary electrophoresis, scientists have also identified cordycepin and other adenosine derivatives, ergosterol, mannitol, cordyheptapeptide A, and several other unique compounds in cordyceps.

Cordycepin, at low doses, inhibits uncontrolled growth and cell division, and at high doses stops cells from sticking together, which also inhibits growth.

Cordyceps Benefits

Cordyceps has antioxidant and anti-inflammatory properties that boost the immune system and enhance overall health. In addition, it also exhibits anti-tumor, anti-metastatic, anti-aging, antimicrobial, hypoglycemic, neuroprotective and renoprotective effects.

- **Diabetes**

A particular cordyceps polysaccharide has strong antioxidant properties and a hypoglycemic effect. It helps improve glucose metabolism and increase insulin sensitivity.

- **Liver Health**

Studies show that cordyceps has the ability to adjust T lymphocyte subset levels and is effective against hepatic fibrosis for chronic hepatitis sufferers.

- **Kidneys**

Cordyceps increases blood circulation to various body parts, helping regulate their normal functions. It helps strengthen the lungs and kidneys, increasing their energy and vitality, and decreasing bleeding. It helps the body fight chronic kidney diseases.

- **Respiration**

Cordyceps' anti-inflammatory properties help fight cough, chronic bronchitis and asthma by relaxing bronchial walls, thus enhancing respiratory function.

鹼、胸腺嘧啶脫氧核苷和脫氧尿苷。新鮮的天然冬蟲夏草比乾製的、加工後的或者人工培育的冬蟲夏草的核苷含量低。核苷是核苷酸的生化初期形式，而核苷酸是核酸DNA和RNA的分子構成元素。核苷可被用於多種抗生素，科學家已找到了仿製核苷的方法，並且用以生產抗逆轉錄病毒藥物。

另外，野生冬蟲夏草還含有蛋白質、肽類、所有的必要氨基酸和多胺，糖類和糖衍生物，甾醇類、脂肪酸和其它有機酸，各種維生素(包括B₁、B₂、B₁₂、E和K)，還有各種無機元素。科學家通過薄膜層和氣象色譜分析、高性能的液相色譜分析、還有毛細管電泳等方法的分析，還在冬蟲夏草中發現了虫草素和其它腺苷的衍生物、麥角固醇、甘露醇、環肽類化合物和一些其它的獨特化合物。

低劑量的蟲草素能夠抑制細胞的肆意滋生和細胞分裂，而高劑量的蟲草素能夠阻止細胞的粘連，也能控制細胞的滋長。

冬蟲夏草的效益

冬蟲夏草具有抗氧化、抗炎症的特性，可強化免疫系統，提昇整體健康水平。另外，它還具有抗腫瘤、抗轉移、抗衰老、抗細菌、抗低血糖症、保護神經和保護腎臟的作用。

- **糖尿病**

一種特別的蟲草多糖具有極強的抗氧化特性和降低血糖的作用，它有助促進葡萄糖的代謝並增強胰島素的敏感性。

- **肝臟**

研究顯示冬蟲夏草具有調整T淋巴細胞亞群水平的能力，還能夠有效抵制慢性肝炎患者的肝臟向纖維化發展。



- **腎臟**

冬蟲夏草會加快身體許多部位的血液循環，有助於各個部位功能的正常化；還能強化肺臟和腎臟，增進這些器官的能量和活力，減少出血；也有助於抵禦慢性腎臟疾病。



• Strength

Antioxidant properties in cordyceps increase cellular formation, soothe the nervous system, reduce anxiety and promote more restful sleep, thereby reducing the effects of fatigue on the body.

Wild is Best!

With the growing worldwide market for this incredibly powerful fungus, and considering its limited availability, science has been trying diligently to commercially grow and market *Cordyceps sinensis*. It is now widely available commercially as the mycelium, but to date, no one has managed to produce cordyceps that reaches the mushroom stage. While the mycelium does contain much of the same compounds as the fruiting body of the fungus, it is not considered as potent or desirable. The wild caterpillar mushrooms are still the most highly prized—and still as precious as gold! ☞

• 呼吸

冬蟲夏草具有抗炎症的特性，通過放鬆支氣管壁，可幫助抑制咳嗽，抵禦慢性支氣管炎和哮喘，進而改善呼吸功能。

• 補充精力

具有抗氧化特性的冬蟲夏草能夠促進細胞的形成，安撫神經系統，減少焦慮，讓睡眠更加甜美安寧，從而減輕身體的疲勞感。

野生的才是極品!

由於國際市場對冬蟲夏草的需求量在不斷增長，而冬蟲夏草的出產量又十分有限，所以科研人員一直在努力地嘗試對這種極品真菌進行商業化培植，以使之市場化。但是到目前為止，只有菌絲培植成功，可供商用，而真正地將菌絲培養到真菌階段，尚無人能及。然而菌絲所含的複合物與長成的菌體雖然多有相同，但其效力卻與成熟的菌體相差甚遠，無法令人滿意。所以，野生冬蟲夏草的價格仍然高居極頂，仍然貴比黃金! ☞

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References:

Winkler, Daniel. Yartsa Gunbu (*Cordyceps sinensis*) and the Fungal Commodification of Tibet's Rural Economy. *Economic Botany* 63.2: 291–306. http://www.danielwinkler.com/caterpillar_fungus_in_tibet.htm. Cited: 2-11-2011.
Demick, Barbara. A 'worm' worth its weight in gold. *Los Angeles Times*. <http://articles.latimes.com/2008/jun/27/world/fg-worm27/2>. Published: June 27, 2008. Cited: 2-11-2011.
Tibet's 'herbal viagra', worth its weight in gold. *France 24 International News*. <http://observers.france24.com/content/20110121-tibet-herbal-viagra-worth-its-weight-gold-yarsagumba-observers>. Published: 21/01/2011. Cited: 2-10-2011.

Cordyceps. *Drugs.com*. c2000-11 [Updated: 2011 January 12; Cited: 2011 February 10]. Available from: <http://www.drugs.com/npp/cordyceps.html>.
Nucleoside. (2008, April 3). *New World Encyclopedia*. Retrieved 18:31, February 11, 2011 from <http://www.newworldencyclopedia.org/entry/Nucleoside?oldid=687174>.
Cordycepin. *InternetChemistry.com*. <http://www.internetchemie.info/news/2009/dec09/cordycepin.html>. Published: 28.12.2009. Retrieved: 10.02.2011.
Deshpande, Amruta. *Cordyceps Benefits*. *Buzzle.com*. <http://www.buzzle.com/articles/cordyceps-benefits.html>. Published: 5/29/2010. Retrieved 2-10-2011.