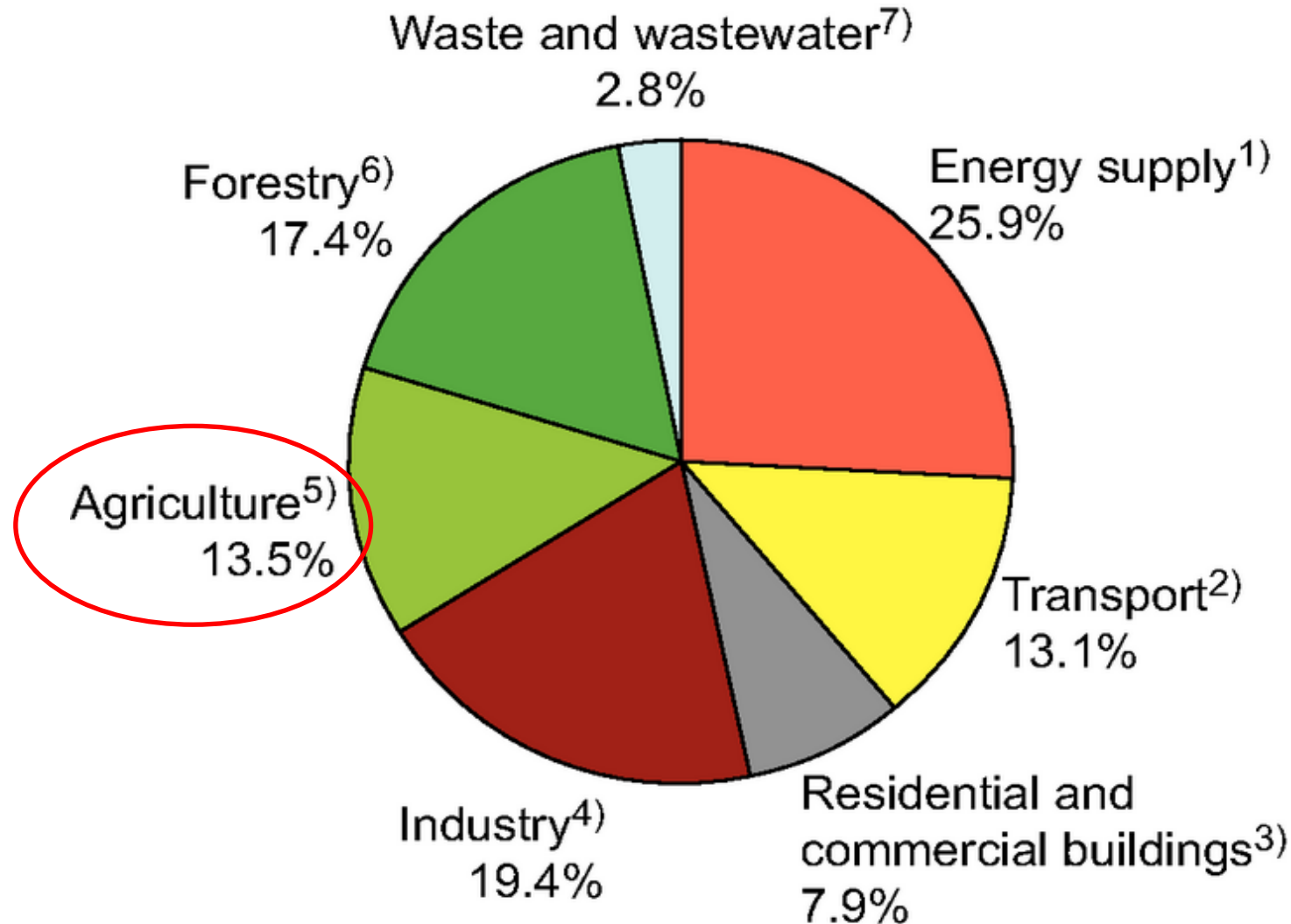


淺談低碳飲食

人類活動產生溫室氣體

- 生產能源、和工業: 二氧化碳 (CO_2)
- 畜牧: 甲烷 (CH_4)
- 農業: 一氧化二氮 (N_2O)
- 製冷、噴髮膠: 氯氟碳化合物 (CFCs)
- 汽車廢氣: 臭氧 (O_3)

2004年全球温室氣體排放達490億噸 二氧化碳當量 (CO₂-eq)



食物的溫室氣體排放

- 與食物相關的溫室氣體排放約佔總排放的 **20%**
- 估計英國每人每年排放約 **2.1** 噸與食物相關的二氧化碳當量

低碳飲食

Home

Your house

Your business

Get informed

Get involved

▼ Get involved

▶ Low Carbon Diet

▼ Top Household Tips

▶ Kids

▶ Women

CSL > Get involved > Top Household Tips

Top Household Tips

The carbon footprint of the average Queensland household exceeds 13.77 tonnes of CO₂ each year*.

By reducing the amount of energy you use, you will cut your carbon emissions and personally contribute to the climate change solution.

1. **Replace five regular incandescent lights with compact fluorescent lights (CFLs).** You will save around around 450 kg of CO₂ each year and around \$70 a year on your electricity bill.
2. **Buy GreenPower.** It is one of the best ways to make your home carbon neutral and significantly reduce your carbon footprint. Contact your energy retailer to find out how you can buy GreenPower.
3. **Wash your clothes in cold water using cold water detergents.** Ninety percent of the energy used by washing machines is in water heating.
4. **Hang one load of washing on the line each week rather than putting it in the dryer.** You will save 120kg of CO₂ a year and save around \$20 from your electricity bill.
5. **Turn off TVs, DVD players, stereos, game consoles and other equipment at the wall.** Appliances in standby mode continue to use electricity. A mobile phone charger will be responsible for 35 to 70 kg of CO₂ if left plugged in when not charging.
6. **Buy fresh fruit and vegetables in season from your local farmers market.** Greenhouse gases are emitted when energy is used to raise livestock and grow plants, and when foods are transported, processed and packaged. The places where food is sold also use energy for lighting and airconditioning.

國民 低碳飲食選擇參考手冊

The EPA's low-carbon food choices



日常生活要低碳，還要兼顧營養！
怎麼選食材？怎麼烹調？怎麼吃？
讓本手冊來告訴您。
改變，就從聰明選擇開始！



 行政院環境保護署
Environmental Protection Administration
Executive Yuan, R.O.C.(Taiwan)

國民
低碳飲食選擇參考手冊
The EPA's low-carbon food choices

緣起

聯合國研究估計，約18%的溫室氣體來自農業相關的排放。這顯示食物系統對於全球暖化有相當大的影響，而聯合國也開始呼籲人們從飲食行為來減少溫室氣體排放。

因此，環保署特別根據國人的飲食習慣、主要食材及烹調方式，彙編編撰我國低碳飲食選擇參考手冊，具體落實全民減碳行動。

我們主張在兼顧營養價值及環境生態的條件下，建立一種低碳飲食的生活態度。期望透過本手冊低碳飲食的綜合觀點，可以讓您吃得更營養、更健康，同時還能保護地球。

準備篇

溫室效應是什麼？和飲食

食材選購篇

出門採購低碳食材的教學

餐飲製備篇

低碳食材也要低碳烹調。

食用與廢棄篇

如何處理沒吃完的食物？

附錄

早午晚低碳菜單實戰演習





低碳食@家

透過以下遊戲, 學習如何以L.O.V.E.R.S. 的飲食新文化,
積極改善自己及環境的健康

開始
遊戲

L.O.V.E.R.S. 飲食原則

減碳承諾

嚟嚟愛地球

396

名香港人承諾實踐低碳飲食生活

主辦:



合辦:



贊助:



(<http://www.lowcarbonliving.hk/chi/>)

「低碳食在家」計劃的六大低碳飲食原則

- **LOVERS**

- **Local** (本地生產)
- **Organic** (有機農產品)
- **Vegetarian** (多吃素，少吃肉)
- **Energy saving** (省能烹調)
- **Reduce, reuse and recycle** (減廢循環)
- **Seasonal** (時令新鮮)

Local (本地生產)

本地生產

- 食品運輸過程排放溫室氣體
- 本地及生產自鄰近地區的食品，食物的處理程序較為簡單
- 本地食物例子：
 - 川龍西洋菜
 - 元朗烏頭
 - 鹿頸牛奶

從原產地到嘴巴的距離

香港被譽為美食之都，在這個彈丸之地，我們可以品嚐到來自世界各地的食材，其中百分之九十五的都是進口食物。

享用環球美食，滿足口腹之後，埋單計數，原來有一筆隱形帳目並未反映在帳單上。千里迢迢而來的食物，由產地到我們的餐桌上，損耗的食物里程難以估計。食物里程指食物在運輸過程中產生的污染，碳排放和能源耗損的指標。

要減低食物里程，實踐低碳飲食，一班另類美食家提出「吃當地」和不時不食的概念，推動生產本地食物。在市區天台養蜜蜂提煉本地蜜糖、生產香港第一磚有機豆腐、百分百本地製蓮蓉和果醬，目的只有一個，提倡本地生產，本地消費，既減低食物里程，同時也支持本土農業。

編導：關鳴川

Tag: 公共事務, Current Affairs, 低碳, 食物里程, 養蜜蜂提煉蜜糖, 有機豆腐, 生產本地食物, 自製蓮蓉和果醬

鏗鏘集 從原產地到嘴巴的距離 (15/11/2010)



Michael在工業大廈天台養蜜蜂，希望能生產本地蜜糖。



葉其學在香港養蜂廿多年，經常到郊外尋找蜜蜂，他認為香港還有很多天然資源。



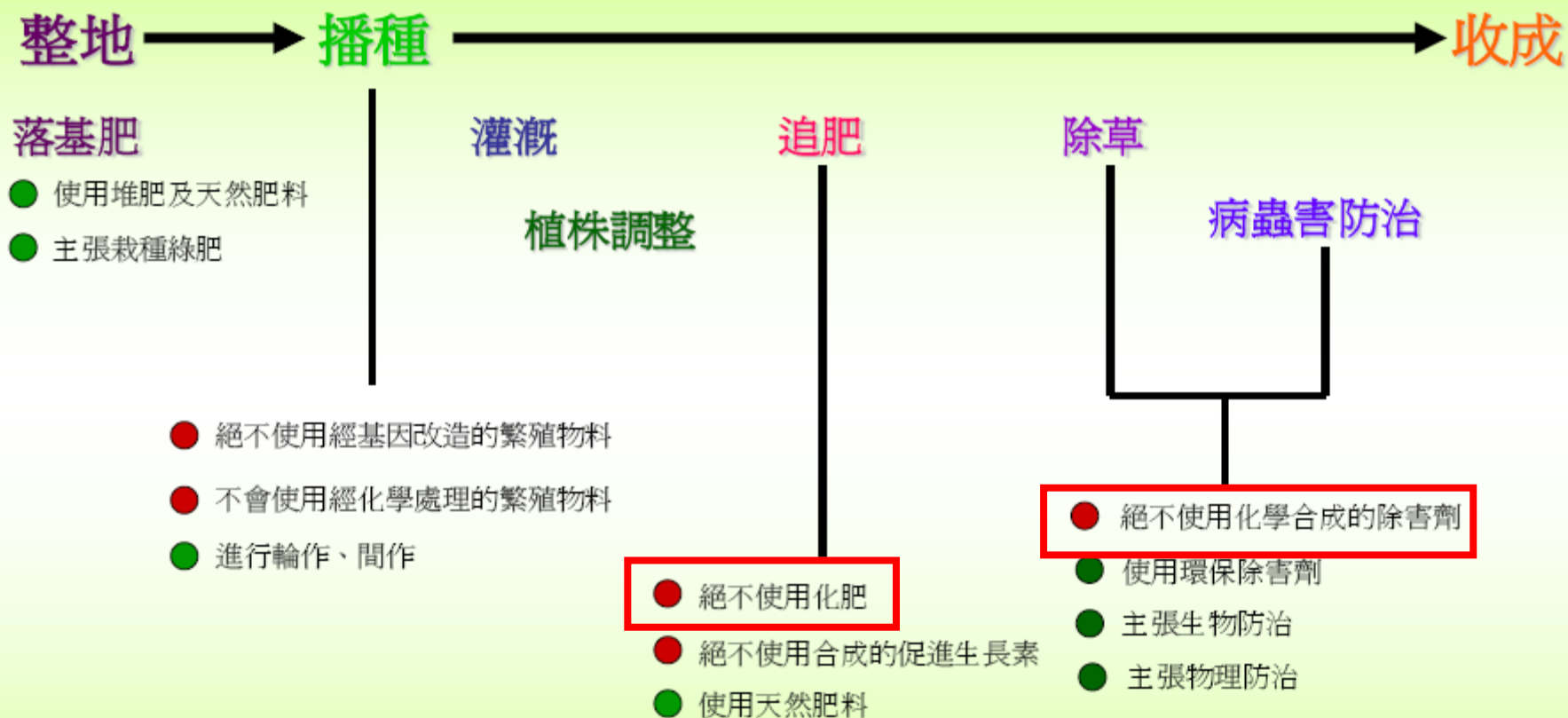
荃灣光板田村種有過百棵大樹菠蘿樹。



灣仔一班街坊將光板田村的大樹菠

Organic (有機農產品)

有機耕作的田間管理



- 肥料可轉化為一氧化二氮
- 研究顯示有機農產品較節省能源

本地有機蔬菜零售點



蔬菜統營處

Vegetable Marketing Organization



回主頁

中文

English



蔬菜統營處
簡介及其職務



銷售地點



新聞及
消息



網上
學習室



遊戲天地



網上問卷



網站地圖



聯絡我們

銷售地點



有機蔬菜



優質蔬菜



信譽蔬菜



溫室蔬菜

有機蔬菜銷售地點



Vegetarian (多吃素，少吃肉)

多吃素，少吃肉

- 反芻動物的腸內發酵產生甲烷
- 牛糞分解產生甲烷和一氧化二氮
- 研究顯示生產紅肉比生產蔬果導致更多溫室氣體排放

膳食纖維有助降低肥胖風險

Evidence	Decreased risk	No relationship	Increased risk
Convincing	Regular physical activity High dietary intake of NSP (dietary fibre) ^b		Sedentary lifestyles High intake of energy-dense micronutrient-poor foods ^c
Probable	Home and school environments that support healthy food choices for children ^d Breastfeeding		Heavy marketing of energy-dense foods ^d and fast-food outlets ^d High intake of sugars-sweetened soft drinks and fruit juices Adverse socioeconomic conditions ^d (in developed countries, especially for women)
Possible	Low glycaemic index foods	Protein content of the diet	Large portion sizes High proportion of food prepared outside the home (developed countries) “Rigid restraint/periodic disinhibition” eating patterns
Insufficient	Increased eating frequency		Alcohol

蔬果及控制體重有助降低患癌風險

Evidence	Decreased risk	Increased risk
Convincing ^a	Physical activity (colon)	<div style="border: 2px solid red; padding: 5px;">Overweight and obesity (oesophagus, colorectum, breast in postmenopausal women, endometrium, kidney)</div> Alcohol (oral cavity, pharynx, larynx, oesophagus, liver, breast) Aflatoxin (liver) Chinese-style salted fish (nasopharynx) Preserved meat (colorectum) Salt-preserved foods and salt (stomach) Very hot (thermally) drinks and food (oral cavity, pharynx, oesophagus)
Probable ^a	<div style="border: 2px solid red; padding: 5px;">Fruits and vegetables (oral cavity, oesophagus, stomach, colorectum^b)</div> Physical activity (breast)	Animal fats Heterocyclic amines Polycyclic aromatic hydrocarbons Nitrosamines
Possible/ insufficient	Fibre Soya Fish n-3 Fatty acids Carotenoids Vitamins B ₂ , B ₆ , folate, B ₁₂ , C, D, E Calcium, zinc and selenium Non-nutrient plant constituents (e.g. allium compounds, flavonoids, isoflavones, lignans)	

多膳食纖維及少飽和脂肪 有助降低糖尿病風險

Evidence	Decreased risk	No relationship	Increased risk
Convincing	Voluntary weight loss in overweight and obese people Physical activity		Overweight and obesity Abdominal obesity Physical inactivity Maternal diabetes ^a
Probable	NSP ¹		Saturated fats Intrauterine growth retardation
Possible	n-3 fatty acids Low glycaemic index foods Exclusive breastfeeding ^b		Total fat intake Trans fatty acids
Insufficient	Vitamin E Chromium Magnesium Moderate alcohol		Excess alcohol

¹ NSP, non-starch polysaccharides.

^a Includes gestational diabetes.

^b As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health (59).

多蔬果及少飽和脂肪有助降低心血管病風險

Evidence	Decreased risk	No relationship	Increased risk
Convincing	Regular physical activity	Vitamin E supplements	Myristic and palmitic acids
	Linoleic acid		Trans fatty acids
Probable	Fish and fish oils (EHA and DHA)	Stearic acid	High sodium intake
	Vegetables and fruits (including berries)		Overweight
	Potassium		High alcohol intake (for stroke)
	Low to moderate alcohol intake (for coronary heart disease)		
	α -Linolenic acid		
	Oleic acid		Dietary cholesterol
	NSP		Unfiltered boiled coffee
	Wholegrain cereals		
	Nuts (unsalted)		
	Plant sterols/stanols		
Possible	Folate		Fats rich in lauric acid
	Flavonoids		Impaired fetal nutrition
Insufficient	Soy products		Beta-carotene supplements
	Calcium		Carbohydrates
	Magnesium		Iron
	Vitamin C		

EPA, eicosapentaenoic acid; DHA, docosahexaenoic acid; NSP, non-starch polysaccharides.

(WHO Technical Report Series 916, DIET, NUTRITION AND THE PREVENTION OF CHRONIC DISEASES)

Energy saving (省能烹調)

省能烹調

- 生吃或涼拌
- 快炒
- 蒸：在飯面蒸主菜
- 煲湯：食材煮軟便熄火
- 浸：湯水燒熱後，轉慢火將食物浸熟
- 燜燒：食物煮熟後立即熄火，再將鍋蓋蓋上，利用餘溫烹調

Reduce, reuse and recycle
(減廢循環)

減廢循環

- 謝絕即棄食具
- 購買沒有包裝的食物
- 廚餘 = 浪廢 + 溫室氣體

Seasonal (時令新鮮)

時令新鮮

- 違反時令須投入額外資源
- 事例：

	英國本土蕃茄	西班牙運往英國的蕃茄
二氧化碳排放	2394 kg/t	630 kg/t

温室种植蕃茄消耗能量

	British	Spanish	
Gas for production	9.9	0	kWh/kg
	0.0003	0	Mth/t
CO2 from gas use	1858	0	kg/t
NOx from gas use	1.65	0.00	kg/t
PM10 from gas use	0.11	0.00	kg/t
Electricity for production	1.1	1.1	kWh/kg
CO2 from electricity use	536	519	kg/t
NOx from electricity use	1.29	1.36	kg/t
PM10 from electricity use	0.07	0.03	kg/t
Additional transport to UK	0	1079	km by road
	0	182	km by short sea
CO2 from additional transport	0	111	kg/t
NOx from additional transport	0	1.38	kg/t
PM10 from additional transport	0	0.04	kg/t
Total CO2	2394	630	kg/t
Total NOx	2.94	2.74	kg/t
Total PM10	0.18	0.07	kg/t

(The Validity of Food Miles as an Indicator of Sustainable Development, Final Report produced for DEFRA)

蔬菜統營處 - 夏季蔬菜

青豆角	白瓜	青通菜
白豆角	矮瓜	白通菜
潺菜	蒲瓜	芥菜
馬尾白菜	毛/節瓜	菜芯
合掌瓜	絲瓜	夏芥蘭
苦瓜	冬瓜	水瓜
青瓜	莧菜	

蔬菜統營處 - 冬季蔬菜

菜芯	芥蘭	芋頭
唐生菜	甘筍	毛瓜
青白菜	菠菜	豇苗
王菜	薯仔	西蘭花
椰菜	青瓜	茼蒿
西生菜	西洋菜	蘿白
蕃茄	油麥菜	

健康飲食 **vs** 低碳飲食

健康飲食原則

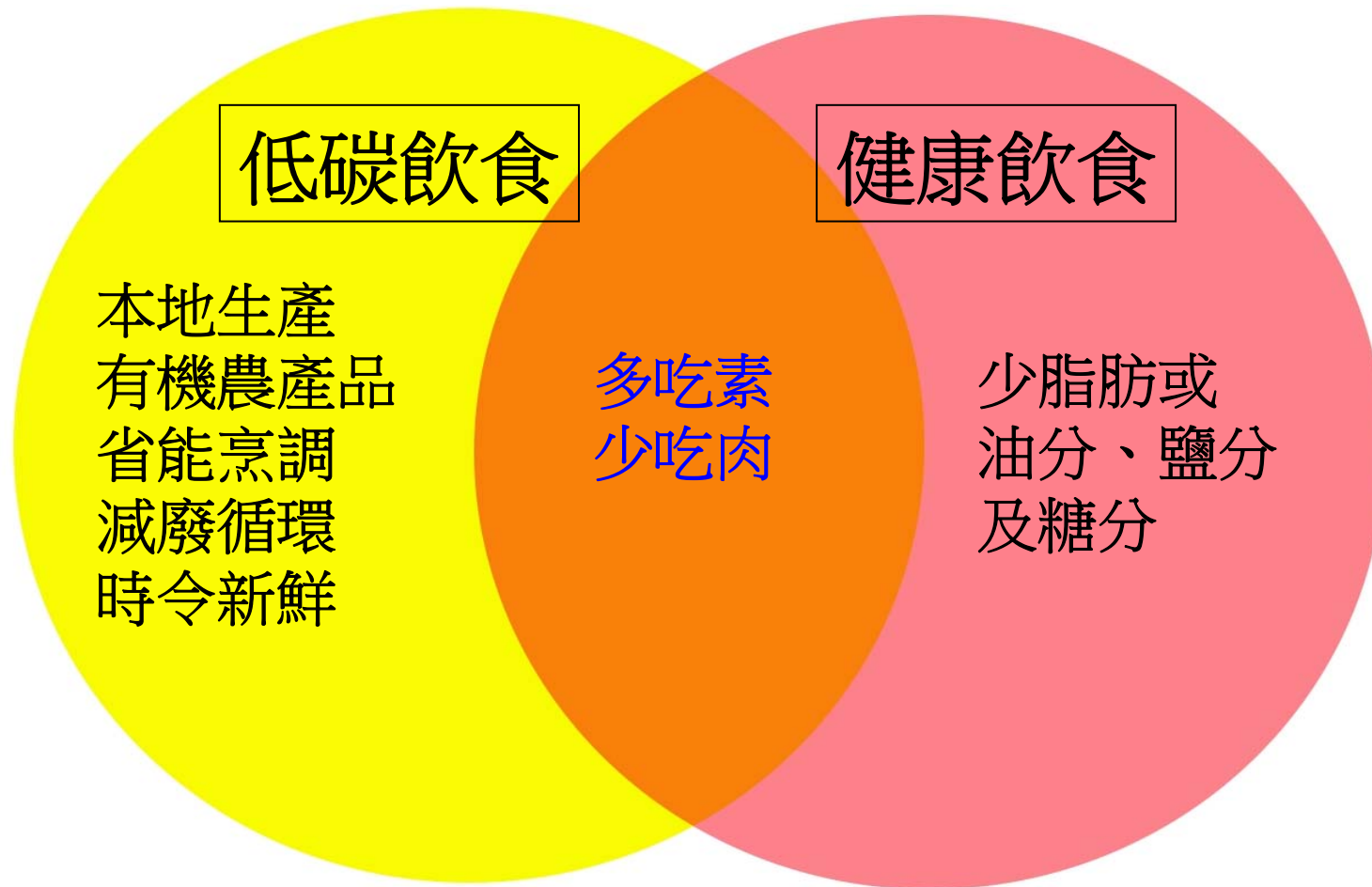


全屬蔬果類 或按體積計，蔬果類是肉類的
2 倍或以上



較少脂肪或油分、鹽分
及糖分烹調

低碳飲食與健康飲食同時建議 多蔬果少肉



“Changes in lifestyle and behaviour patterns can contribute to climate change mitigation across all sectors.”

— 政府間氣候變化專門委員會(IPCC)的第四份評估報告