What Are Brassicas?

-Brassicas have many forms and uses
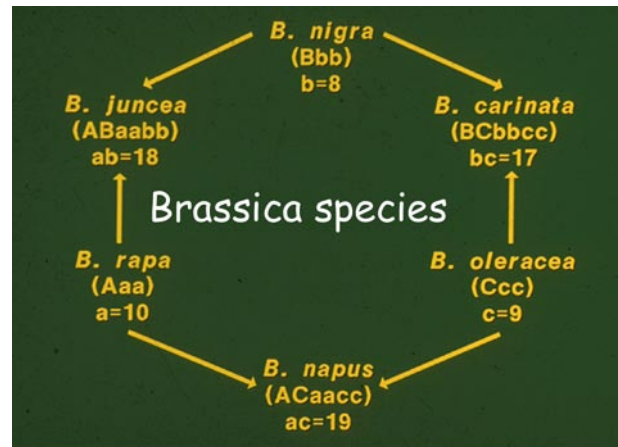

Brassica vegetables

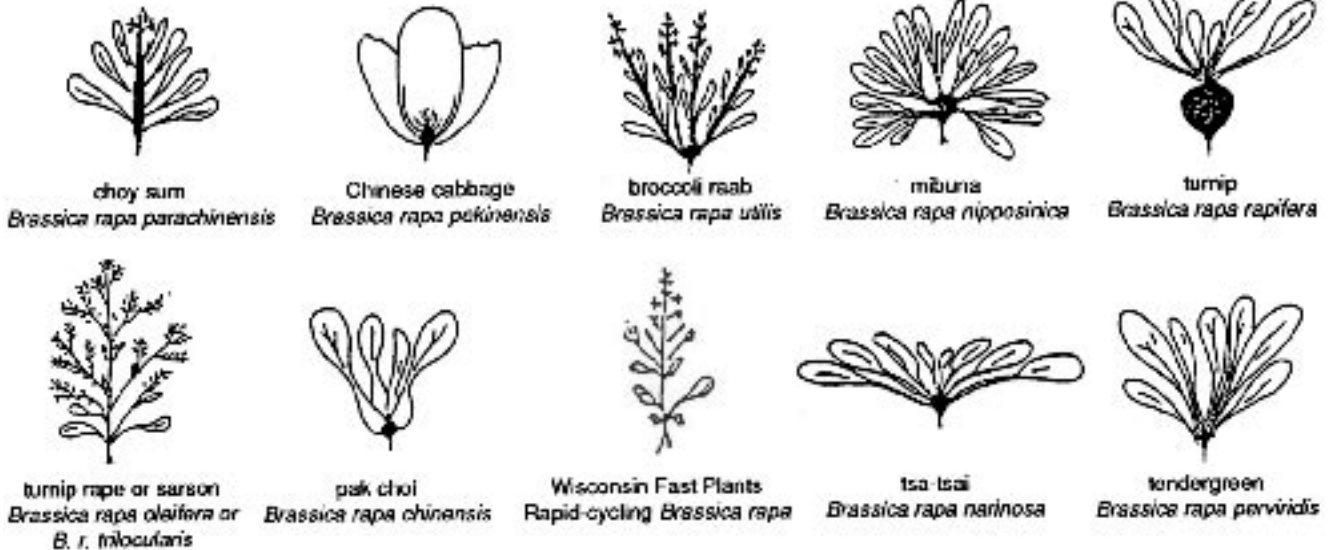Fodder brassica, kale

Oilseed brassica, Canola field

CANOLA OIL
Brassica oil

Roland
Moutarde a L'Ancienne
Mustard

Brassica family
-typical flower

Brassica flower

4X

Brassica genus
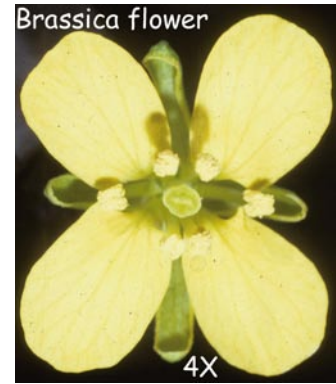
Genus-Brassica

Genus:Brassica

2X

25 X

Pods with 2 valves that shed seeds

Seed leaves folded around embryo stem

Brassica species

B. nigra
(Bbb)
b=8

B. juncea
(ABaabb)
ab=18

B. carinata
(BCbbcc)
bc=17

Brassica species

B. rapa
(Aaa)
a=10

B. oleracea
(Ccc)
c=9

B. napus
(ACaacc)
ac=19

Forms of Brassica rapa

choy sum
Brassica rapa parachinensis

Chinese cabbage
Brassica rapa pekinensis

broccoli raab
Brassica rapa utilis

mibuna
Brassica rapa nipposinica

turnip
Brassica rapa rapifera

turnip rape or sarson
Brassica rapa oleifera or B. r. trilocularis

pak choi
Brassica rapa chinensis

Wisconsin Fast Plants
Rapid-cycling *Brassica rapa*

tsa-tsai
Brassica rapa narinosa

tendergreen
Brassica rapa perviridis

What Are Brassicas?

1. Brassicas are flowering plants widely used in the human diet around the world.
   - Brassicas have a variety of forms and uses:
     - <u>Vegetables</u> of many types: roots, stems, leaves, buds, flowers
     - <u>Condiments and pickles</u>: mustard, wasabi, horseradish, kimchee, sauerkraut.
     - <u>Animal feed</u> and fodder
     - <u>Oilseed</u> and <u>meal</u>, canola oil

2. Brassicas belong to the brassica family, Brassicaceae.
   - Members of the brassica <u>family</u> (375 genera, >3,000 species) are related through origin and descent and share in common: flowers with 4 sepals; 4 petals in the form of a cross (crucifix); 6 anthers and one pistil; and specialized chemicals (glucosinolates) giving them a <u>distinctive taste</u>.
   - Sometimes the brassica family is called the mustard family, sometimes the crucifer family (Cruciferae).

3. Plants in the <u>genus</u> Brassica have seed pods with 2 valves that split to release seeds, and embryos with seed leaves that fold around the embryonic stem.

4. Within Brassica are 6 inter-related <u>species</u>, each having a different number of chromosomes.

5. Within each species of Brassica are various <u>forms</u> and <u>varieties</u>, each having particular uses (vegetable, oil, etc.).

6. Forms and varieties of Brassica are the result of domestication from the wild by humans.

7. New forms of Brassica are created through the process of selection and breeding.