

Key to genera in the Agaricaceae in California ~ Else C. Vellinga ~ May 2004  
**Key to agaricoid members of the Agaricaceae, including Lepiotaceae, in California**  
**Based on both macroscopical and microscopical characters**

Else C. Vellinga  
vellinga@berkeley.edu

1. Spores brown, dark or black
2. Spores black, with a germ pore; pileus dissolving into ink  
..... **Coprinus comatus** and **C. sterquilinus**
2. Spores red to brown, without a germ pore or with an inconspicuous germ pore; pileus never dissolving into ink
3. Lamellae pink-red; pileus small (c. 1 cm), dark brownish, with granulose covering, made up of round cells; spores rough and warted  
..... **Melanophyllum haematospermum** (in Redwood forests)
3. Lamellae pale pink at first, changing to dark brown with age; pileus small to very big and fleshy, smooth or with fibrillose to scaly covering; spores smooth..... **Agaricus**
1. Spores white or very pale, or green(ish)
4. Spores green ..... **Chlorophyllum molybdites**
4. Spores white
5. Spores with a germ pore **AND** clamp connections present at base of basidia
6. Spores with a truncate apex, without a hyaline cap over the pore; stipe smooth  
..... **Chlorophyllum**, including **Macrolepiota rachodes** and allies
6. Spores with a rounded apex, and a hyaline cap over the pore; stipe with small flocks in bands..... **Macrolepiota** (very rare in California)
5. Spores without a germ pore, or with a germ pore but then without clamp connections
7. Pileus with a granulose covering, made up of round cells; spores small; clamp connections present or absent..... **Cystolepiota**
7. Pileus with a smooth or squamose covering, made up of elongated cells, rarely with round cells; clamp connections absent or present
8. Clamp connections present (check in pileus covering or at base of basidia) ..... **Lepiota**
8. Clamp connections absent
9. Pileus covering made up inflated cells; spores small, without germ pore  
..... **Cystolepiota pulverulenta/Lepiota petasiformis**
9. Pileus covering very variable, if made up of inflated cells, spores with germ pore and relatively big ..... **Leuoagaricus & Leucocoprinus**  
.... (molecular data indicate that these two genera are intermingled, and can not be separated)

**How to recognize a *Lepiota* species from a *Leuoagaricus* species**

*Lepiota* - Stipe woolly or with material in bands as on cap. If stipe is smooth, without such material, clamp connections are present, and the pileus covering is a hymeniderm.

*Leuoagaricus* - Stipe smooth, or at the utmost with the same colour as the pileus; pileus covering mainly thin. If in doubt get the microscope out: clamp connections absent and spores have a pink inner wall in Cresyl Blue.