

Honey Bee Brood Diseases

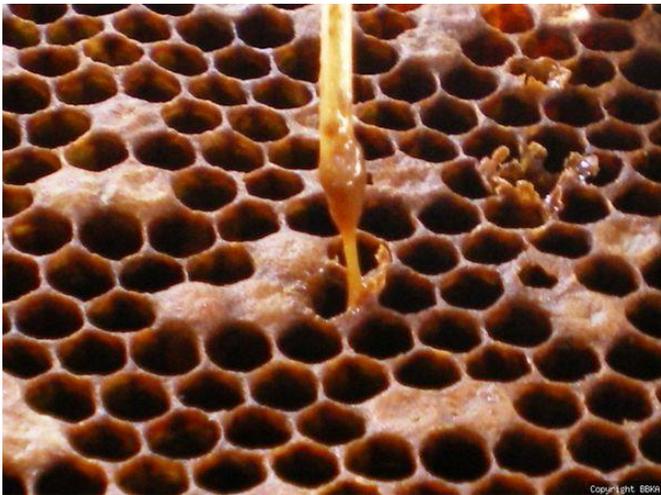
[A useful guide to keep with your hive notes.]

Disease	Cause	Appearance of Broodnest	Appearance of Cappings	Dead Larvae	Colour and Consistency of Larvae	Scales	Odour
American Foulbrood	paeni-bacillus larvae-bacterium, spore forming	scattered brood pattern	sunken, perforated, discoloured, greasy appearance	flat on bottom of cell	light brown, dull white, dark brown, eventually coffee to dark brown,; sticky to ropey	black-brown and rough, removed by bees with difficulty; lies flat on lower side of cell	unpleasant glue-like rotting
Chalkbrood	Acosphaera apis, a fungus	scattered	light or dark, convex, any perforated	most often in sealed or perforated cells	white and mouldy, later grey-black, hard and chalk-like	none	normal
Chilled brood	sudden or prolonged low temperature	few or many dead larvae in cells at edge of brood nest	light or dark sunken and discoloured over time	mostly in unsealed cells	dark or black, dry quickly	remnants are removed by bees easily	normal, rotten odor in severe cases
Drone brood in worker cells	unfertilized or laying worker eggs in worker cells	predominantly drone brood	bullet-like	none or few	normal	none	normal
European foulbrood, advance infection	Melissococcus plutonius, a bacterium	scattered brood pattern, often pepperbox in appearance	discoloured, sunken, perforated	in unsealed and sealed cells, in twisted positions, sometimes stretched out on the ventral side of the cell	black-brown, viscous, slightly ropey and sticky	rubbery, black-brown and smooth, are removed by bees with difficulty	unpleasant, sour
European Foulbrood-Early infection	Melissococcus plutonius, a bacterium	scattered brood pattern	some discoloured, sunken, perforated	in unsealed cells, in twisted positions; trachea system often visible	yellow and brown; remains granular	yellowish or light brown; easily removed by bees	sour
Healthy Brood		pattern of sealed cells	light brown colour, convex cappings	none	plump, white, mother-of-pearl appearance	none	none or fresh
Sacbrood	Sacbrood virus	scattered,	often dark	most often	greyish to	head	none to

		often with many unsealed cells	and sunken, many perforated	with head raised	black, watery and granular; skin has a sack-like appearance	predominantly curled up; yellow-brown or dark grey; removed by bees with ease	sour
Stonebrood	Aspergillus flavus, or Aspergillus fumigatus a fungus	affected cells have a greenish, mouldy appearance	some perforated and covered with a greenish layer	in unsealed and sealed cells	green-yellow, hard and shrunken	none	mouldy in advanced stage
Varroa disease	Varroa destructor, a mite	scattered brood pattern; infestation greatest in drone brood	discoloured and sunken	in sealed cells when heavily infected	dead larvae decay; surviving adults are often deformed	none, dead larvae and pupae easily removed by bees	unpleasant, rotten in severe infestations

Watch this video for information on Chalk, Sac Brood, Moths & Tracheal Mites

<http://www.youtube.com/watch?v=Lqq4W3WfKK0>



AFP Ropiness Test



AFB Symptoms



EFB Symptoms - discoloured larvae & lying awkwardly. Burning Frames infected with EFB.

Watch this video on European & American Foul Brood: <http://www.youtube.com/watch?v=05tCHtUyNHM>