

Splitting node: color=green

color=green

skin	size	flesh	class
2 hairy	large	hard	safe
4 hairy	large	soft	safe
8 hairy	small	soft	dangerous
9 smooth	small	hard	dangerous
12 smooth	small	soft	dangerous
16 hairy	small	hard	dangerous



Entropy of the node [skin=smooth] = $-2/2 \log 2/2 = 0$

Entropy of the node [skin=hairy] = $-2/4 \log 2/4 - 2/4 \log 2/4 = 0.30$

Averaged entropy of the split on skin = $4/6 * 0.30 = \mathbf{0.20}$

Entropy of the node [size=large] = $-2/2 \log 2/2 = 0$

Entropy of the node [size=small] = $-4/4 \log 4/4 = 0$

Averaged entropy of the split on size = $\mathbf{0.00}$

Entropy of the node [flesh=soft] = $-1/3 \log 1/3 - 2/3 \log 2/3 = 0.28$

Entropy of the node [flesh=hard] = $-1/3 \log 1/3 - 2/3 \log 2/3 = 0.28$

Averaged entropy of the split on flesh = $3/6 * 0.28 + 3/6 * 0.28 = \mathbf{0.28}$

The
best

