

PROCESSED PANGOLIN SCALES - QUICK REFERENCE GUIDE

SUNDA PANGOLIN

Manis javanica

RAW SCALES

Shield-shape
(Trunk scales)



Scale bed

Dorsal:
Presence of grooves from
tip to base of scale

Ventral:
Presence of scale bed
area, often with tissue



2cm

PROCESSED SCALES

1. May appear more
yellow than raw scales

2. May be more brittle
than raw scales

3. Grooves still
visible

4. May have
blisters

5. Scale bed
still visible

6. May have burnt marks

7. Scales expand & thicken

Tissue may still be present at
scale bed for DNA sampling



PROCESSED SCALES

Pangolin scales smuggled
within cassava chips



8. Scales may be distorted



CHECKLIST

Processed Sunda pangolin scales
are likely to have the following traits:

1. ☐ May appear more yellow than raw scales
2. ☐ May be more brittle than raw scales
3. ☐ Grooves still visible
4. ☐ May have blisters
5. ☐ Scale bed still visible
6. ☐ May have burnt marks
7. ☐ Thicker than raw scales
8. ☐ May be distorted

Pangolin scales are processed for use in traditional Chinese medicine, often through frying or deep frying. Processing alters the appearance of the scales, making them harder to detect when smuggled. This guide serves as a quick reference for identifying processed Sunda pangolin scales. DNA analysis can confirm the species when morphology is unclear.

PROCESSED PANGOLIN SCALES - COMPARING WITH LOOK-ALIKES

PANGOLIN SCALE (PROCESSED)

Manis javanica



2cm

- Colour:** Yellowish golden, sometimes with darker or burnt marks.
- Shape:** Shield-like shape, but often distorted.
- Surface:** Grooves present on one side & feel rough to the touch. Scale bed present on other side. Blisters may be present.
- Hardness:** Hard & requires some force to break.
- Density:** Floats on water.

CASSAVA CHIP (RAW)

Manihot esculenta Crantz



2cm

- Colour:** Pale white to off-white, sometimes with a faint yellowish tinge.
- Shape:** Thin, flat discs or irregular slices, often circular to oval.
- Surface:** Smooth & slightly glossy, with both sides similar in appearance.
- Hardness:** Hard and brittle, snaps readily with slight force.
- Density:** Sinks in water.

CASSAVA CHIP (PROCESSED)

Manihot esculenta Crantz



2cm

- Colour:** Golden yellow to light brown, sometimes with darker edges.
- Shape:** Thin, crisp discs or irregular slices, often slightly curled or twisted.
- Surface:** Slightly rough to touch and sometimes blistered, with both sides similar in appearance.
- Hardness:** Very brittle. Easily fractured with minimal force producing a clean, crisp snap.
- Density:** Sinks in water.

LILY PETAL (DRIED)

Lilium lancifolium



2cm

- Colour:** Pale yellow to off-white.
- Shape:** Often slightly curved, with a broad & rounded base that gradually tapers to a narrower apex.
- Surface:** Smooth & relatively uniform, with both sides similar in appearance. Faint longitudinal striations extending from the base towards the apex are visible on the surface.
- Hardness:** Brittle. Easily fractured, producing a clean, crisp snap.
- Density:** Sinks in water.

PRAWN CRACKER (RAW)



2cm

- Colour:** Usually varying shades of cream, yellow, or orange.
- Shape:** Thin discs or ovals with gently curved edges.
- Surface:** Smooth & slightly glossy, with both sides similar in appearance.
- Hardness:** Hard & firm, but brittle. Easily snaps with moderate force.
- Density:** Sinks in water.

PRAWN CRACKER (PROCESSED)

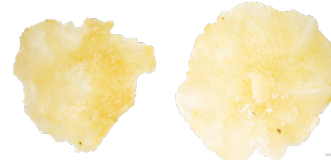


2cm

- Colour:** Usually pale golden brown to light beige.
- Shape:** Irregular, often wavy with curled & smooth margins.
- Surface:** Crisp & slightly roughened with noticeable air pockets. Both sides are similar in appearance.
- Hardness:** Very brittle & easily fractured with minimal force.
- Density:** Floats on water.

BELINJAU CHIP (RAW)

Gnetum gnemon



2cm

- Colour:** Pale off-white to yellowish-beige.
- Shape:** Thin, flat, disc-like structures with irregular edges.
- Surface:** Slightly uneven surface, often with cracks. Both sides are similar in appearance.
- Hardness:** Very brittle. Snaps readily with slight force into multiple pieces.
- Density:** Sinks in water.

BELINJAU CHIP (PROCESSED)

Gnetum gnemon



2cm

- Colour:** Golden brown.
- Shape:** Thin, irregular-shaped & often slightly curled or twisted, giving it an uneven appearance.
- Surface:** Slightly rough, crisp, & blistered in places, resulting in an undulating appearance. Both sides are similar in appearance.
- Hardness:** Very brittle. Snaps readily with slight force into multiple pieces.
- Density:** Floats on water.

PIG'S TOENAIL (RAW)

Sus scrofa domesticus



2cm

- Colour:** Usually pale yellow.
- Shape:** Flattened at the base with a curved, conical form above, forming an open cavity with irregular margins at the opening.
- Surface:** Relatively smooth, with longitudinal lines running from the base to the tip. Remnant tissue & hair may be present.
- Hardness:** Hard & firm. Does not snap easily with force.
- Density:** Floats on water.

PIG'S TOENAIL (PROCESSED)

Sus scrofa domesticus



2cm

- Colour:** Usually yellowish golden to dark brown.
- Shape:** Retains a conical form but often becomes more twisted after heating, with edges that may curl slightly.
- Surface:** Rough, usually with blisters and cracks.
- Hardness:** Hard but not very brittle. Can be snapped with moderate force.
- Density:** Floats on water.

ACONITE ROOT (PROCESSED)

Aconitum camichaelii



2cm

- Colour:** Yellow to light brown.
- Shape:** Thin, flat, disc-like structures, often circular to oval with irregular edges.
- Surface:** Smooth but not usually even, with irregular, small grooves & lines. Both sides are similar in appearance.
- Hardness:** Hard & brittle. Snaps readily with slight force.
- Density:** Sinks in water.

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