

ตารางที่ 2 แสดงลักษณะทางสัณฐานวิทยาของปรงในสกุล *Zamia*

Species	Stem type	Leaf				Rachis			
		Length (cm)	No.	Colour	Keel	Colour	Curve	Prickle	Reducing to spine
<i>Z. pygmaea</i>	subterranean	0.1 - 0.3	40	dull green	S.keel	green	gentle curve	-	-
<i>Z. monticola</i>	subterranean	0.2 - 0.3	48	dull green	M.keel	green	recurve	-	+
<i>Z. poeppigiana</i>	aborescent	0.3 - 0.4	46	dark green	S.keel	green	gentle curve	-	+
<i>Z. fairchildiana</i>	aborescent	0.2 - 0.3	40	dull green	M.keel	green	gentle curve	-	+
<i>Z. pumila</i>	subterranean	0.2 - 0.3	40	dull green	S.keel	green	gentle curve	-	-
<i>Z. roezlii</i>	aborescent	0.3 - 0.6	44	dark green	S.keel	green	gentle curve	-	+
<i>Z. obliqua</i>	aborescent	0.2 - 0.3	30	dark green	M.keel	green	gentle curve	-	+
<i>Z. skinneri</i>	aborescent	0.3 - 0.4	24	dark green	M.keel	green	straight	-	-
<i>Z. polymorpha</i>	subterranean	0.3 - 0.4	34	dull green	M.keel	green	gentle curve	-	-
<i>Z. muricata</i>	subterranean	0.2 - 0.3	40	dark green	M.keel	green	gentle curve	-	+
<i>Z. fischeri</i>	subterranean	0.1 - 0.15	40	dull green	S.keel	green	gentle curve	-	-
<i>Z. amblyphyllidia</i>	subterranean	0.1 - 0.3	36	dull green	S.keel	green	gentle curve	-	-
<i>Z. loddigesii</i>	subterranean	0.2 - 0.4	45	dull green	M.keel	green	gentle curve	-	+
<i>Z. lucayana</i>	subterranean	0.1 - 0.25	30	dull green	M.keel	green	gentle curve	-	-
<i>Z. herrerae</i>	subterranean	0.3 - 0.4	45	dull green	M.keel	green	gentle curve	-	+
<i>Z. manicata</i>	subterranean	0.2 - 0.3	20	dark green	M.keel	dark brown	gentle curve	-	+
<i>Z. purpurea</i>	subterranean	0.2 - 0.3	14	dark green	M.keel	dark brown	gentle curve	-	+
<i>Z. variegata</i>	subterranean	0.3 - 0.4	34	dark green	M.keel	green	gentle curve	-	+
<i>Z. portoricensis</i>	subterranean	0.3 - 0.4	36	dull green	S.keel	green	gentle curve	-	-
<i>Z. vazquezii</i>	subterranean	0.1 - 0.15	40	dark green	horizontal	green	straight	-	-
<i>Z. furfuracea</i>	subterranean	0.1 - 0.2	30	brownish green	St.keel	light brown	straight	-	+
<i>Z. sp.</i>	subterranean	0.15 - 0.2	40	dark green	M.keel	green	gentle curve	-	-
<i>Z. pseudomonticola</i>	aborescent	0.3 - 0.5	40	dull green	S.keel	green	gentle curve	-	+
<i>Z. angustifolia</i>	subterranean	0.2 - 0.5	40	dark green	M.keel	green	gentle curve	-	-
<i>Z. neurophyllidia</i>	aborescent	0.2 - 0.4	25	dark green	M.keel	green	straight	-	-
<i>Z. encephalartoides</i>	aborescent	0.3 - 0.4	48	light green	M.keel	green	recurve	-	-
<i>Z. tuerckheimii</i>	aborescent	0.3 - 0.4	30	dull green	M.keel	green	gentle curve	-	+
<i>Z. inermis</i>	aborescent	0.2 - 0.4	80	dull green	S.keel	green	straight	-	-
<i>Z. integrifolia</i>	subterranean	0.15 - 0.2	40	dark green	St.keel	green	straight	-	-
<i>Z. standleyi</i>	subterranean	0.3 - 0.4	48	light green	M.keel	green	gentle curve	-	+

S.keel = slightly keel, M.keel = moderately keel, St. keel = strongly keel, + = have this characteristic (present), - = do not have this characteristic (absent)

Species	Leaflet										
	Vein	Apex	Base	Shape	Overlapping type	Insertion angle	Margin	Upper margin	Lower margin	Hairy	Concave
<i>Z. pygmaea</i>	+	obtuse	cuneate	oblong	none	acute	flat	dentate	entire	-	-
<i>Z. monticola</i>	+	acute	cuneate	linear-lanceolate	none	acute	flat	dentate	entire	-	-
<i>Z. poeppigiana</i>	+	acuminate	cuneate	linear-lanceolate	none	horizontal	flat	dentate	entire	-	+
<i>Z. fairchildiana</i>	+	acuminate	cuneate	oblong	none	horizontal	flat	dentate	entire	-	+
<i>Z. pumila</i>	+	obtuse	cuneate	oblong	none	acute	flat	dentate	entire	-	-
<i>Z. roezlii</i>	+	acuminate	cuneate	linear-lanceolate	none	horizontal	flat	entire	entire	-	+
<i>Z. obliqua</i>	+	acuminate	cuneate	oblong	none	horizontal	flat	dentate	entire	-	+
<i>Z. skinneri</i>	+	acuminate	cuneate	lanceolate	downward	horizontal	flat	dentate	entire	-	+
<i>Z. polymorpha</i>	+	acute	cuneate	linear-lanceolate	downward	acute	flat	dentate	entire	-	+
<i>Z. muricata</i>	+	acuminate	cuneate	linear-lanceolate	none	acute	flat	dentate	entire	-	+
<i>Z. fischeri</i>	+	acute	cuneate	oblong	none	acute	flat	dentate	entire	-	-
<i>Z. amblyphyllidia</i>	+	obtuse	cuneate	oblong	none	acute	flat	dentate	entire	-	-
<i>Z. loddigesii</i>	+	acute	cuneate	linear-lanceolate	none	acute	flat	dentate	entire	-	-
<i>Z. lucayana</i>	+	obtuse	cuneate	oblong	none	acute	flat	dentate	entire	-	-
<i>Z. herrerae</i>	+	acute	cuneate	linear-lanceolate	downward	acute	flat	dentate	entire	-	+
<i>Z. manicata</i>	+	acuminate	cuneate	lanceolate	none	acute	flat	dentate	entire	-	+
<i>Z. purpurea</i>	+	acuminate	cuneate	lanceolate	downward	acute	flat	dentate	entire	-	+
<i>Z. variegata</i>	+	acute	cuneate	linear-lanceolate	downward	acute	flat	dentate	entire	-	+
<i>Z. portoricensis</i>	+	acute	cuneate	linear	none	acute	flat	entire	entire	-	-
<i>Z. vazquezii</i>	+	acuminate	obtuse	lanceolate	none	horizontal	flat	dentate	dentate	-	-
<i>Z. furfuracea</i>	+	obtuse	obtuse	obovate	upward	obtuse	flat	dentate	dentate	+	-
<i>Z. sp.</i>	+	obtuse	cuneate	oblong	none	horizontal	flat	dentate	entire	-	-
<i>Z. pseudomonticola</i>	+	acuminate	cuneate	oblong	none	horizontal	flat	entire	entire	-	+
<i>Z. angustifolia</i>	+	obtuse	cuneate	linear	none	horizontal	flat	entire	entire	-	-
<i>Z. neurophyllidia</i>	+	acuminate	cuneate	lanceolate	downward	horizontal	flat	dentate	entire	-	+
<i>Z. encephalartoides</i>	+	acute	cuneate	linear-lanceolate	downward	obtuse	flat	entire	entire	-	-
<i>Z. tuerckheimii</i>	+	acuminate	cuneate	oblong	none	horizontal	flat	entire	entire	-	+
<i>Z. inermis</i>	+	acute	cuneate	linear-lanceolate	none	horizontal	flat	entire	entire	-	-
<i>Z. integrifolia</i>	+	obtuse	cuneate	oblong	none	horizontal	flat	dentate	entire	-	-
<i>Z. standleyi</i>	+	acute	cuneate	linear-lanceolate	downward	horizontal	flat	dentate	entire	-	+

Species	Male cone				
	Shape	Colour	Length (cm)	Width (cm)	Hairy
<i>Z. pygmaea</i>	cylindrical	red	15 - 20	3 - 4	+
<i>Z. monticola</i>	cylindrical	light brown	15 - 20	2 - 3	+
<i>Z. poeppigiana</i>	cylindrical	light brown	20 - 25	2 - 4	+
<i>Z. fairchildiana</i>	cylindrical	light brown	20 - 30	2 - 4	+
<i>Z. pumila</i>	cylindrical	red	10 - 20	3 - 4	+
<i>Z. roezlii</i>	cylindrical	light brown	25 - 50	4 - 6	+
<i>Z. obliqua</i>	cylindrical	light brown	20 - 25	2 - 4	+
<i>Z. skinneri</i>	cylindrical	dark brown	20 - 25	2 - 3	+
<i>Z. polymorpha</i>	cylindrical	light brown	15 - 20	2 - 4	+
<i>Z. muricata</i>	cylindrical	light brown	15 - 20	2 - 3	+
<i>Z. fischeri</i>	cylindrical	grey	10 - 20	3 - 4	-
<i>Z. amblyphyllidia</i>	cylindrical	red	15 - 20	3 - 4	+
<i>Z. loddigesii</i>	cylindrical	grey - green	15 - 20	3 - 4	+
<i>Z. lucayana</i>	cylindrical	red	15 - 20	2 - 3	+
<i>Z. herrerae</i>	cylindrical	light brown	15 - 20	2 - 3	+
<i>Z. manicata</i>	cylindrical	dark brown	10 - 15	1.5 - 2	+
<i>Z. purpurea</i>	cylindrical	dark brown	10 - 15	2 - 3	+
<i>Z. variegata</i>	cylindrical	light brown	15 - 20	2 - 3	+
<i>Z. portoricensis</i>	cylindrical	red	10 - 15	3 - 4	+
<i>Z. vazquezii</i>	cylindrical	light brown	10 - 15	2 - 3	+
<i>Z. furfuracea</i>	cylindrical	grey - green	15 - 20	3 - 4	+
<i>Z. sp.</i>	cylindrical	red	12 - 15	2 - 3	+
<i>Z. pseudomonticola</i>	cylindrical	light brown	20 - 40	4 - 5	+
<i>Z. angustifolia</i>	cylindrical	red	12 - 15	2 - 3	+
<i>Z. neurophyllidia</i>	cylindrical	light brown	10 - 20	2 - 3	+
<i>Z. encephalartoides</i>	cylindrical	light brown	20 - 30	3 - 5	-
<i>Z. tuerckheimii</i>	cylindrical	light brown	15 - 20	2 - 4	+
<i>Z. inermis</i>	cylindrical	light brown	15 - 20	3 - 4	+
<i>Z. integrifolia</i>	cylindrical	red	12 - 15	2 - 3	+
<i>Z. standleyi</i>	cylindrical	light brown	10 - 12	2 - 3	+

Species	Female cone				
	Shape	Colour	Length (cm)	Width (cm)	Hairy
<i>Z. pygmaea</i>	ovoid	red	8 - 10	4 - 5	+
<i>Z. monticola</i>	cylindrical	light brown	15 - 20	3 - 4	+
<i>Z. poeppigiana</i>	barrel	light brown	20 - 25	6 - 7	+
<i>Z. fairchildiana</i>	barrel	light brown	15 - 20	6 - 7	+
<i>Z. pumila</i>	ovoid	red	10 - 12	4 - 5	+
<i>Z. roezlii</i>	barrel	light brown	25 - 35	8 - 10	+
<i>Z. obliqua</i>	barrel	light brown	15 - 30	6 - 8	+
<i>Z. skinneri</i>	barrel	dark brown	15 - 20	5 - 6	+
<i>Z. polymorpha</i>	barrel	light brown	10 - 15	4 - 5	+
<i>Z. muricata</i>	cylindrical	red	15 - 20	3 - 3.5	+
<i>Z. fischeri</i>	ovoid	grey	10 - 12	4 - 7	-
<i>Z. amblyphyllidia</i>	ovoid	red	8 - 10	4 - 6	+
<i>Z. loddigesii</i>	barrel	grey - green	15 - 20	4 - 7	+
<i>Z. lucayana</i>	barrel	red	10 - 12	3 - 4	+
<i>Z. herrerae</i>	barrel	light brown	10 - 15	4 - 6	+
<i>Z. manicata</i>	cylindrical	red	10 - 15	3 - 4	+
<i>Z. purpurea</i>	ovoid	dark brown	8 - 10	3 - 5	+
<i>Z. variegata</i>	barrel	light brown	10 - 15	4 - 6	+
<i>Z. portoricensis</i>	ovoid	red	8 - 10	4 - 5	+
<i>Z. vazquezii</i>	ovoid	light brown	8 - 10	5 - 6	+
<i>Z. furfuracea</i>	barrel	grey - green	10 - 15	4 - 6	+
<i>Z. sp.</i>	barrel	red	10 - 12	3 - 5	+
<i>Z. pseudomonticola</i>	barrel	light brown	12 - 20	4 - 7	+
<i>Z. angustifolia</i>	barrel	red	10 - 15	3 - 5	+
<i>Z. neurophyllidia</i>	ovoid	light brown	10 - 12	3 - 4	+
<i>Z. encephalartoides</i>	ovoid	dark green	20 - 30	7 - 10	-
<i>Z. tuerckheimii</i>	barrel	grey - green	18 - 20	4 - 6	+
<i>Z. inermis</i>	barrel	light brown	15 - 20	5 - 7	+
<i>Z. integrifolia</i>	barrel	red	10 - 12	3 - 5	+
<i>Z. standleyi</i>	ovoid	light brown	10 - 20	4 - 7	+

Species	Seed			
	Shape	Colour	Length (cm)	Width (cm)
<i>Z. pygmaea</i>	ovoid	orange - red	1 - 1.5	1
<i>Z. monticola</i>	ovoid	red	1 - 1.5	1
<i>Z. poeppigiana</i>	ovoid	red	1.5	1.2
<i>Z. fairchildiana</i>	ovoid	red	1 - 1.5	1.5
<i>Z. pumila</i>	ovoid	red	1 - 1.5	1 - 1.2
<i>Z. roezlii</i>	ovoid	red	1.2 - 1.5	1 - 1.2
<i>Z. obliqua</i>	ovoid	red	1 - 1.5	0.8 - 1
<i>Z. skinneri</i>	ovoid	red	1.5	0.8 - 1
<i>Z. polymorpha</i>	ovoid	red	1.5	1 - 1.2
<i>Z. muricata</i>	ovoid	red	1.5	1
<i>Z. fischeri</i>	ovoid	red	1.5	1.2
<i>Z. amblyphyllidia</i>	ovoid	orange - red	1 - 1.5	1 - 1.2
<i>Z. loddigesii</i>	ovoid	red	1.4 - 1.6	0.8 - 1
<i>Z. lucayana</i>	ovoid	red	1.5	1
<i>Z. herrerae</i>	ovoid	red	1 - 1.5	1
<i>Z. manicata</i>	ovoid	red	1 - 1.5	0.8 - 1
<i>Z. purpurea</i>	ovoid	red	1.5	1
<i>Z. variegata</i>	ovoid	red	1 - 1.4	1
<i>Z. portoricensis</i>	ovoid	red	1 - 1.2	1 - 2
<i>Z. vazquezii</i>	ovoid	red	1.4 - 1.6	1.2 - 1.3
<i>Z. furfuracea</i>	ovoid	red	1.5 - 1.7	1 - 1.2
<i>Z. sp.</i>	ovoid	orange - red	1.2 - 1.5	1 - 2
<i>Z. pseudomonticola</i>	ovoid	red	1.2 - 1.5	1
<i>Z. angustifolia</i>	ovoid	orange - red	1.2 - 1.5	1 - 2
<i>Z. neurophyllidia</i>	ovoid	red	1.5	1
<i>Z. encephalartoides</i>	aboovoid	cream	1.5 - 1.8	1.5
<i>Z. tuerckheimii</i>	ovoid	red	1.8 - 2	1 - 1.5
<i>Z. inermis</i>	ovoid	red	1.7 - 2	1.5
<i>Z. integrifolia</i>	ovoid	orange - red	1.2 - 1.5	1 - 2
<i>Z. standleyi</i>	ovoid	red	1.2 - 1.4	1

