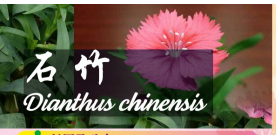

石竹
Dianthus chinensis

科屬及分布
Family and Distribution

石竹(學名 *Dianthus chinensis*)，又名五彩石竹、中國石竹或印度石竹，隸屬石竹科(Caryophyllaceae) 石竹屬(*Dianthus*)，是多年生草本植物，多作一年生草本栽培，原產於中國，現有多個栽培品種，花色繁多，更有重瓣品種，為世界各地廣泛栽種的觀賞花卉。

Dianthus chinensis, commonly known as Dianthus, Rainbow Pink, China Pink, Chinese Pink or Indian Pink, is a herbaceous perennial, though it is usually grown as an annual herb. The plant belongs to the genus *Dianthus* in the family Caryophyllaceae. Native to China, Dianthus is now available in a diverse range of cultivars with flowers in different colours, and also in varieties with multiple layers of petals. It is widely grown as ornamentals around the world.

形態及特徵
Form and Characteristics

石竹高10至20厘米，莖枝直立，纖細光滑，多分枝。葉片對生，線狀披針形，無毛，全緣，基部合生，狹莖。圓錐形聚繖花序頂生或數朵簇生。花瓣5枚，單瓣或重瓣，具香氣，邊緣具不整齊的淺齒裂。花色鮮艷，有紅色、粉紅色、紫紅色、白色等，呈純色或雙色。花期由十月至翌年四月。圓筒形蒴果內藏細小黑色種子。

Dianthus stands 10 to 20 cm in height with upright, slender, smooth and branched stems. The leaves are opposite, linear-lanceolate, glabrous with entire margins, connate at base and stem-clasping. The fragrant flowers with five petals are either terminal or in clusters of paniculate cymose inflorescences. Having single or double petals with irregularly lobed margins, the single or bi-coloured flowers are in a wide variety of striking hues including red, pink, magenta and white. The flowering period lasts from October to April of the following year. Small black seeds can be found in the cylindrical capsule.

生長習性及護理
Growth Habits and Care

石竹喜涼，耐寒，不耐酷熱，喜通風的環境，忌高溫多濕。生長適溫為10℃至25℃。日照良好則生長較旺盛。夏季應宜放於半遮蔭位置，並避免長期置於潮濕環境。栽培土質以排水良好和富有機質的砂質土壤為佳。澆灌時澆水，以防植料過乾、過濕或積水。

石竹分枝性強，除施以充足基肥外，生長期間每月適量施肥一次，亦可令植株健康生長，有利開花。成株後若主莖長高並先結蕾，應加以摘除，以促進其他側枝培蓄及使株形整齊。花謝後剪除殘花，再適量補給肥料，能促使植株繼續開花。

Dianthus favours cool weather and well-ventilated environment. Being cold-resistant, it is intolerant of extreme heat and sensitive to high temperature and excessive moisture. It has an optimum growth temperature of 10°C to 25°C and thrives under full sun. It is preferable to grow Dianthus in partial shade in summer and avoid prolonged exposure to humid environment. Dianthus grows best in well-drained sandy soil rich in organic matter. Timely watering is necessary to prevent the planting medium from being too dry, soggy or waterlogged.

Dianthus is a multi-branched plant. In addition to adequate application of base fertiliser, moderate fertilisation can be carried out once a month to promote healthy growth and flowering. When the main stem grows tall and flower buds begin to emerge, the new buds should be pinched to promote the growth of other lateral buds and keep the plant shapely. Deadheading with appropriate supplementation of fertiliser can promote further flowering.

繁殖
Propagation

石竹可用播種、扦插和分株等方式繁殖。播種須在秋季進行，播種適溫為18℃至22℃。把種子撒播在疏鬆濕潤的土壤上。播種後要以薄土覆蓋。發芽適溫為21℃至22℃。播種後澆水保持濕潤，約一週後種子便會發芽。育苗期間應避免過度澆水，以防幼苗倒伏。如幼苗過於密集，須拔除弱苗。待幼苗長至約5厘米或長出4至6片葉片後，可移植到盆中。定植後應保持充足日照。在植株生長期間，每月施用含小量氮、鉀、磷三種要素的肥料一次，幼苗定植成株後可隔心一次，以增加分枝及花蕾數目。從播種到成苗約需9至11周，定植約45天後開花。開花期間每月施用三種要素肥料一次，可使花朵開得更反盛。

除播種外，石竹也可以扦插和分株繁殖。扦插可在晚秋至翌年春季期間進行。扦插介質以透氣及排水良好的乾淨砂質土壤為佳。扦插時應選取母莖中間的健壯枝條作插穗。每根插穗應長約5至8厘米，最少有3至4個節，節與節之間距離宜短。除頂端2至4塊葉片外，摘掉其餘葉片。然後將插穗下方三分之一至二分之一插入培植土壤。澆透水後把插穗置於半遮陰處，溫度保持在18℃以上，約兩星期後再移到較明亮處接受柔光照射，其間必須保持植料濕潤。插穗約兩星期發根，待根部旺盛後再進行定植。分株多在開花後利用老株進行。先把母株整盆，去掉土壤，找出幼苗(又稱根蘖苗)，然後把根蘖苗連根與母株分開，隨即上盆栽植。

Dianthus can be propagated by methods such as seed sowing, cutting and plant division. For seed propagation, seeds should be sown for cultivation in autumn at an optimum temperature of 18°C to 22°C. Seeds can be scattered onto loose and moist soil, and after that they should be covered with a thin layer of soil. The optimum temperature for germination is between 21°C and 22°C. After sowing, keep the soil moist by watering. Germination takes place in about 1 week, during which overwatering should be avoided to prevent the seedlings from drooping. If the seedlings are too crowded, remove the weaker ones. The seedlings are ready for potting as soon as they grow to about 5 cm tall or when 4 to 6 pieces of leaves have developed. After establishment, sufficient sunlight should be maintained. Fertiliser containing tiny amounts of the essential elements of nitrogen, phosphorus and potassium should be applied every month during the growth period. Pinch the growing tips once when the seedlings are established to promote branching and flower bud formation. It takes about 9 to 11 weeks for seeds to become seedlings. Dianthus generally flowers in approximately 45 days from establishment. During the flowering period, apply fertiliser containing the above three essential elements every month for more vigorous blooming.

Apart from seed sowing, cutting and plant division can also be employed to propagate Dianthus. Cutting can be carried out from late autumn to spring of the following year. The rooting medium should preferably be well-aerated, properly drained and clean sandy soil. Select healthy and sturdy branches at the middle of the mother stem as cuttings, each of which should be 5 to 8 cm long with at least 3 to 4 nodes and ideally short internodes. Strip all but the top 2 to 4 leaves and insert the bottom one-third to half of the cuttings into the medium. Water the mixture thoroughly. Then leave the cuttings in a partially shaded place at a temperature above 18°C for around 2 weeks before moving them to a brighter area under subdued light. Keep the medium moist throughout the period. Roots will develop in about 2 weeks. Cuttings with vigorous root development can be transplanted for establishment. For plant division, usually old plants that have bloomed are used. First of all, detach the parent plant from its pot and remove the soil. Then find the tillers (also known as suckers) and cut the suckers with roots from the parent plant and replant the new divisions into pots promptly.

防治病蟲害
Prevention and Treatment of Pests and Diseases

石竹病蟲害較多，尤以病害為甚，主要有立枯病、葉斑病及銹病等。為預防病害，扦插繁殖時應選用健康的插穗。如於苗期發現病株，必須將其清除，並噴灑殺菌劑，消毒土壤。蟲害方面主要有紅蜘蛛、蚜蟲及夜盜蛾等。最佳預防方法是把植株放在陽光充足、通風及排水良好的環境中。適量澆水施肥，亦有利植株健康生長。

Dianthus is susceptible to many pests and diseases, particularly the latter, including damping off, leaf spot and rust, etc. For the prevention of diseases, healthy shoots should be selected for propagation by cutting. Infected seedlings must be removed once found and sprayed with disinfectant for soil sterilisation. The pests affecting the plant are mainly red spider mites, aphids and armyworms, etc. The best prevention is to place the plant in an environment with abundant sunlight, good ventilation and proper drainage. Water and fertilise moderately to encourage healthy plant growth.

園藝應用
Horticultural Application

石竹花色鮮艷多變，形態優美，耐寒及花期長，深受園花者喜愛。經常用於園林造景和花壇布置等，亦適合以盆栽種在陽台或窗邊觀賞。

Dianthus is well cherished by flower lovers for its variety of bright colours, elegant form, tolerance against cold weather and long flowering period. It is often used in landscape and floral bedding displays, etc. It is also suitable to be planted in container pots on the balcony or window side for appreciation.

一般護理
General Maintenance

繁殖及護理 Propagation and care		
最適合溫度 Optimum temperature	發芽 Germination	18°C - 22°C
	生長 Growth	10°C - 25°C
泥土酸鹼值 pH value	pH 6 - 7	
繁殖 Propagation	播種 Seed sowing 扦插 Cutting 分株 Plant division	

	春 Spring	夏 Summer	秋 Autumn	冬 Winter
日照 Sunlight	☀		☀	☀
澆水 Watering	💧		💧	💧
施肥 Fertilising	🌱		🌱	🌱
換盆 Re-potting	🪴		🪴	✗

圖例 Key

- ☀ 日照充足 Abundant sunlight
- 🌱 少許 Little
- 🌱🌱 中等 Medium

石竹的生長過程
The Course of Growth of Dianthus

種子 Seeds
↓
幼苗 Seedlings
↓
定植 Potting Up
↓
結蕾 Bud Formation
↓
開花 Blooming

移植幼苗
Transplanting Seedlings

步驟一 Step one：

把培養土放入花盆，直至泥土離盆頂半吋。培養土可加入有機質或緩效性化學肥料作為基肥，以供植株生長所需。

Fill each pot with potting mix up to half an inch from the top rim. Organic matter or slow-release chemical fertilisers may be added to the potting mix as a base fertiliser to support plant growth.

步驟二 Step two：

用小鏟子把幼苗移離播種盆，切勿弄斷幼苗根部。

Remove the seedlings from the germination tray with a small shovel. Do not damage the roots of the seedlings.

步驟三 Step three：

用小鏟子在花盆中央挖一個洞，其闊度和深度應與幼苗根部泥團大小相若。把幼苗置於洞中，蓋上培養土，並輕輕壓平，讓培養土與泥團接觸。切勿壓斷幼苗根部。移盆後切記馬上澆水，同時亦可摘心，促使幼苗萌發側芽，多長花蕾。

Dig a hole in the center of each pot with a small shovel. The width and depth of the hole should be similar to those of the root ball of the seedling. Place the seedling in the hole and fill it with potting mix. Flatten the potting mix gently until it comes into contact with the root ball. Do not crush the roots of the seedling. Remember to water the plant immediately after transplanting. Pinch the growing tips as necessary to promote the development of lateral buds and flowers.

步驟四 Step four：

把移植後的幼苗置於半遮陰處，避免陽光直射。其後幼苗必須每天接受6至8小時日照，以促進生長和開花。花盆表土乾乾時便應澆水。

Place the transplanted seedlings in a semi-shaded area and avoid direct sunlight. Thereafter, the seedlings should be exposed to sunlight for 6 to 8 hours a day to encourage growth and flowering. Water them when the soil surface begins to dry out.