The colours of dahlia flowers are a result of anthocyanin-, chalcone- and aurone-derived pigments. Colourless flavones interact with and stabilise anthocyanin pigments, which also influences dahlia flower colour.

**WHAT CAUSES DIFFERENT COLOUR DAHLIAS?**

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**PIGMENTS IN DIFFERENT COLOURED DAHLIAS**

- **YELLOW**
- **ORANGE**
- **PINK, MAGENTA & RED**
- **‘BLACK’**

Chalcones and aurones → Anthocyanins

- Derivatives of butein (top), sulfuretin (bottom) and isoliquiritigenin
- Derivatives of pelargonidin (top) and cyanidin (bottom)

**WHY DON’T WE SEE BLUE DAHLIAS?**

A single enzyme, flavonoid 3’5’H-hydroxylase (F3’5’H), is responsible for generating the precursor to the anthocyanidin delphinidin. Delphinidin-derived anthocyanins give blue colours. Dahlias cannot make the F3’5’H enzyme, so blue dahlias aren’t possible.