

Figure 2.1 Cocoa growing countries.

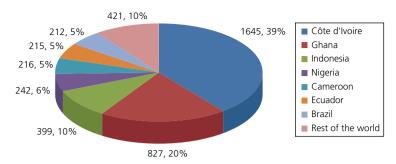


Figure 2.2 Average production of cocoa beans by country (×1000t and as % of world crop). Data (3 year average, 2011–2015). Adapted from ICCO.



Figure 2.3 Pods grow from the trunk and branches. Reproduced with permission of Fabien Coutel.

The third type of cocoa is called Trinitario. The origin of the Trinitario varieties is usually stated as the result of hybridisation between Forastero and Criollo trees. Consequently, some Trinitario varieties produce cocoas with special flavours such as dried fruits or molasses.

The fourth type is Nacional which is only grown in Ecuador and probably originates from the Amazonian area of Ecuador. Nacional cocoa produces beans with "Arriba" flavour renowned for its floral note (see Section 2.7.8). Nacional is highly susceptible to witches' broom and frosty pod rot (Monilia) diseases. Pure Nacional varieties have almost disappeared and the varieties with Arriba flavour in Ecuador are hybrids between Nacional and Trinitario.

Genetic studies propose 10 different groups of cocoa (Motamayor *et al.*, 2008), which include Criollo, Amelonado and Nacional groups; but Trinitario is no longer recognised as a separate group. This genetic knowledge will help with breeding programmes to develop new improved varieties. The objectives