

## PHOTOGRAPHY WORKSHOP

I use a Nikon digital SLR camera and am still learning how to get the best out of it, so can only share with you how I do things with my camera. It can be hard to get your head around, but there's no getting away from reading your own camera's instructions, a bit at a time, to find your way around the menus and the settings, then practising lots to get the best out of it.

You may have a point-and-shoot, or a compact camera that you always use on its fully automatic setting. It's not been that long since I worked my way up from a point-and-shoot to a compact camera to the SLR I have now. Compact cameras generally have Scene modes for close-up, indoors, sports, and so on, so you can stick with those and get good results. But if it has a Programmable mode, you may also be able to alter some of the settings such as ISO, White Balance and Exposure Compensation, and being able to change these can sometimes come in useful.

## SETTING UP THE CAMERA

**Choose a File Size:** I would recommend you use the biggest image size and file size you can. You can always reduce the file size on the computer later for e-mailing or whatever, but you can't go the other way. It will mean you use up more memory card(s) but it's worth it. The commonest kind of image file is a Jpeg (pronounced jay-peg, and given this name by the Joint Photographic Experts Group)

Compact: Very Fine or High

DSLR: RAW preferably rather than Jpeg.

**Lighting:** I think plants shot with flash look un-natural, and the colours are unrealistic, so I always use natural light. If you have no choice but to photograph plants indoors:

Compact: Turn off your flash and/or try the Indoor Scene setting

DSLR: Increase the ISO (= sensitivity, ISO being an abbreviation for the International Standards Organisation). My camera is normally on its lowest setting (which is 200) but in dim light I might increase the ISO to 400 or 600, but rarely more than 1000. Be aware that although your ISO might go up to tens of thousands, as you increase the ISO, there's more chance you'll get speckles ("noise") in the resulting photograph. Although you can reduce "noise" later on the computer, it's best to try and avoid it in the first place if you can, by keeping the ISO as low as possible.

**White Balance:** your eye's a wonderful thing, it sees colours perfectly in sunshine, cloud, shade or under artificial light (fluorescent, tungsten, etc), but cameras struggle.

Compact: Should adjust automatically

DSLR: These have a White Balance setting in the menu which can be altered for different lighting conditions, so have a practice using the various settings and see what you think of the results. Often the colours are different with different White Balance settings, maybe browner or bluer, so I prefer to use either Daylight, or leave the White Balance on its Automatic setting. If you're taking RAW pictures, many computer software programmes allow you to change the White Balance during processing, but not if you've taken Jpegs.

**Focussing:** I nearly always use the camera's automatic focussing as it's better than my ageing eyesight! The only time I switch to manual focussing is when the camera is looking at the wrong thing. For example, a lion behind bars, it might take a good sharp picture of the bars with a very blurred lion behind. Do always make sure that the flower/petal/detail in the very foreground of the picture is sharp (unless you're doing something particularly artistic!) as a blurred foreground is very distracting to a viewer. Use the Replay button and zoom the image a bit bigger to check that it's in focus before you move on.

DSLR: The focus point can be moved to different points - up, down and sideways - using the 4-way button, so if you want say the anthers of a crocus to be sharp rather than the petals, you can choose this exact point.

**Exposure:** On automatic setting, Compact cameras will normally decide this for you and give good results.

DSLR: You have the choice of wide-angle exposure (covering the whole field of view e.g. for landscapes), centre-weighted (e.g. for a flower in the middle of the picture) or spot (for one very particular spot in the field of view e.g. the flower centre). I nearly always use centre-weighted.

**Shutter Speed and Aperture:** On automatic setting, Compact cameras will normally decide this for you and give you good results.

DSLR: Exposure and Shutter Speed are a balancing act: open the shutter for half the time and you will need the shutter's aperture to be twice as wide to let in the same amount of light. In practice, if in the wild the plant is waving about in the wind, you need a fast shutter speed to "stop" the plant in its tracks and prevent blur, e.g. 1/125<sup>th</sup> second or more. But this means you will need a wide Aperture (= low 'f' numbers, say f11 or f16) to get enough light into the camera in such a short time. If no wind, or indoors, you can use a slower shutter speed e.g. 1/60<sup>th</sup> second and a smaller Aperture (say f18 or f22). Remember that small Apertures give you better Depth of Field (see below) if this is what you want.

**Depth of Field:** This is a measure of how much of the photo from front to back is in sharp focus, whether all of it or just perhaps the front part.

Compact: On automatic setting, this will be decided for you.

DSLR: You can choose whether you want the whole plant in focus, or just the foreground sharp with the middle and back fading away into a soft blur. To get the maximum depth of field, you need to choose a small aperture (= bigger 'f' numbers) (something to do with the optics but don't ask me what!) However, a small aperture means that less light is entering the camera so you will need the aperture open for a longer time to let the same amount of light in. Longer exposures can be problematical, as you may get a blurred picture if you suffer from camera-shake, or if in the wild the wind is blowing and waving the plant around. Try taking a few shots at different apertures and speeds and choose the best later. If your camera has a Depth of Field button, you can press the button momentarily as you are tinkering with the settings and it will give you a preview of the shot so you can check if you are happy with the Depth of Field or if you want to change it by changing the aperture.

**Tips for white and yellow flowers:** White and yellow flowers often suffer from glare and get "burnt out" in photos.

DSLR: Have a look for an Exposure Compensation dial. This will have a plus (+) setting to add extra exposure, but for white and yellow flowers you want to go in the minus (-) direction by one or two notches to reduce the exposure. This should help improve that white or yellow "blob" to a flower where you can actually see the veins in the petals. It's not difficult to lighten a photo that's too dark when you put it up on the computer later, but if the highlights are burnt out there's no getting them back. Don't forget to put the Exposure Compensation back to zero when you've done!

## SETTING UP THE PLANT

**Position:** Outdoors, the best time for photography is morning or late afternoon when the light is softer and the shadows less harsh. In the middle of the day it can be too bright and glaring. Indoors, natural light is best, near a well-lit window or doorway if you can manage it.

**Setting up:** I don't like "clutter" in my photos. If outdoors, get rid of any twigs, stalks of grass or anything else distracting in the shot. Often you will need to get down to ground level to get a good photo of the plant rather than an overhead view. Dirty knees are a plant photographer's trademark! Indoors, set up a table at a comfortable height, and if possible arrange a large piece of dark or neutral-coloured card or cloth behind to set off the plant. Examine the plant carefully and pick its best side.

**Tripod:** I would recommend a tripod, especially if like me you don't have terribly steady hands. Or rest your elbows on something like a table, or on the ground outdoors, to hold the camera steady.

### Photographing:

Turn the camera to get the best view of the plant.



"Portrait" layout is best for long tall plants



"Landscape" layout is best for lower wider plants.

A flat mat of a plant may need to be photographed from overhead, but most plants are best side-on.

Fill the frame with the plant (but excluding the pot, we don't need to see that!) You may want to take a photo of the whole plant, then move in closer to photograph one cluster of blooms, and finally do a tight close-up of one flower. Take lots of photos whilst you have the chance so you can pick out the best later.

### AFTER SHOOTING

**Focus/Exposure:** Have a quick look at the photo before you move on, checking that it's sharp and properly exposed.

DSLR: See if you can find the Histogram in the Replay menu. The Histogram tells you how much of your photo is dark and how much is light. (The way I remember which is which is "right is light")



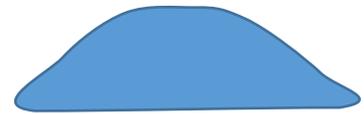
*Dark*

*Light*



*Dark*

*Light*



*Dark*

*Light*

Think Goldilocks: if everything in the histogram is piling up towards the left-hand side, it's too dark, so try another shot with a bit more exposure, using the Exposure Compensation button. If everything is piling up at the right-hand side, it's too bright (and you're probably losing some of the highlights with glare) so try again with less exposure. But if you have a nice rounded hill in the middle, it's just right!

**Notes:** Don't forget to write down the plant's name, where and when or any other important details. Very easy to forget by the time you get round to downloading the memory card.