TIPS FOR QUALITY TURF PHOTOGRAPHY

Turf can develop a different appearance due to various factors such as pest, disease, spray damage, management practices and growing conditions. This can be concerning for a Turf Manager—will it develop into something worse and spread further?

INTRODUCTION

To ease the mind, sending a photo for a second opinion is a good way to address the potential problem quickly as "a picture paints a thousand words".

NZSTI advisors often receive photos seeking opinions, most often for suspected disease outbreaks. Unfortunately, the quality of the images can make it difficult to see the condition clearly enough to make a confident identification.

This article outlines the steps to take high quality images to help solve your next turf puzzle. Thinking about the following points will help you to create a good image.

CAMERA

This is obvious. Most likely you will use a Smart Phone camera, but a digital camera can be better in low light conditions (morning, evening, raining, indoors, winter) or where the symptoms are subtle (slight changes in green colour).

FILE SIZE: BIGGER IS BETTER

The file size and number of pixels affects our ability to expand the image (zoom in) to see more detail on a computer screen or crop (cut) the image to concentrate on the subject while still maintaining a sharp image. Generally, the bigger the file size—and hence the greater the number of pixels—the better the quality of the image. Images sent from a smart phone should be sent as medium, large or full-sized files. Images greater than 200 KB and 3 megapixels (2048 by 1536) should produce large enough files with sufficient detail. Avoid 'email' or 'small' resizing options.

If using a camera, check the image settings. Use either the fine or super fine compression setting and a medium image size of at least 2048 by 1536 pixels (3 megapixels) to produce a large enough file.

Brendan Hannan
AGRONOMIST
NZSTI, PALMERSTON NORTH

FOCUS

The image needs to be clear once it's zoomed in on a computer screen to see fine detail if required. To do so:

- Pre-focus on the image by tapping on the screen in the area you want to highlight (see Figure 4). This will not only make that area the clearest, it will also adjust the lighting of the whole photo to the best lighting for that area.

Figure 1: Out of focus image taken in low light and with slight movement.

- Keep the phone or camera still, use some sort of stand or handle to steady the camera, especially in low light conditions.
- Take multiple images of the subject (from different angles, with and without shadow, at different heights) that can be viewed. Then select the best ones. You can easily delete the unwanted images later.
- If using a camera, use the macro function for taking close-ups.

SCALE

A common object placed near the subject gives a scale. A well-known item such as a ballpoint pen, pocket-knife or golf tee are all good. A ruler is even better!

EXPOSURE

Avoid very light (white paper) backgrounds and be weary of shiny (reflecting) objects like golf balls, steel rulers or laminated or waxy

Figure 2: Well-focused but very dark subject due to excessively light, contrasting background (white paper).

Figure 3: Clear image with scale and minimal shadow. Very easy to identify this as Narrow Leaf Carpet Grass from this image.

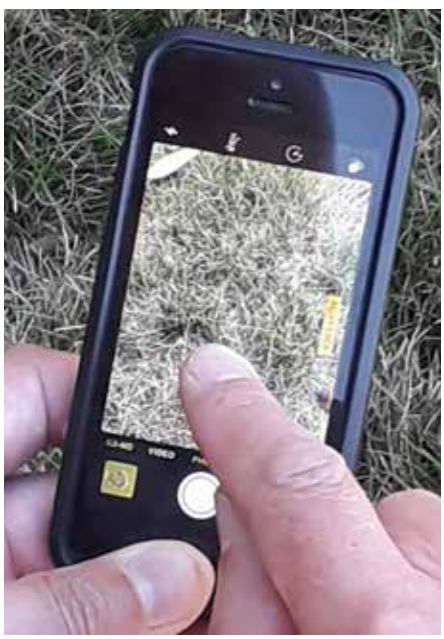

Figure 4: Pre-focussing on the part of the subject of most interest: just tap the screen at the most important place.

paper, as these can fool the camera sensors and make the subject overly dark in the image.

The best background for larger subjects (weeds) is often fine turf. For fine-leaved samples (grass identification) a matt-finish cardboard of contrasting colour (charcoal grey) usually works well.

CLEARLY DEFINED SUBJECT (THE PROBLEM)

Often with turf diseases, the distribution (pattern of the symptoms) is also as important as the close-up image, so consider taking different images.

- Wide-angle view, say from the side of the green/surface (Figure 5)
- Head-high shot looking straight down
- Close-up shot from knee high or lower (Figure 6)
- Macro shot as most cameras and some smart phones have the ability to take images via a magnification tool (lens, macroscope, microscope)
- If applicable, such as with fairy ring or thatch collapse, a photo taken of a plug (50-100mm diameter) from the outer edge of the problem area—from side on or 45 degrees to show the foliage, thatch and soil conditions—is very helpful. (Figure 7).

LABELLING

Labelling each image is not usually required, but where there are many images or multiple conditions a different label is recommended such as condition 1 and condition 2, or early symptom and advanced symptom.

SENDING IMAGES

It is best to attach the images to an email so that they will not be reduced in size and can be quickly and easily viewed on a larger screen. Attaching an image is done by finding the attach icon on the email page before you send it. This icon is usually a small image of a paperclip. Clicking on to this will open up a pull-down menu which will guide you to the image you want to attach. Messaging (sending an image via text, Messenger or WhatsApp), is suitable for obvious or large differences in symptoms, but email attached images are recommended for subtle differences or greater detail.

Some Smart Phones will automatically reduce the size of the image to 'email size', which are generally too small (<200KB) to be clearly viewed on a larger screen (computer). So, either attach images to an email or remember to adjust the file resizing option before sending.

SUMMARY

Today's electronic world allows clear images to be sent instantly, enabling a fast second opinion of potential turf problems. Take a moment to practise taking a good set of turf images to email yourself to check if you're ready if the need arises. ●

Figure 7: Image of a 50mm disease core sample.

Figure 5: Wide-angle view from the side of the green.

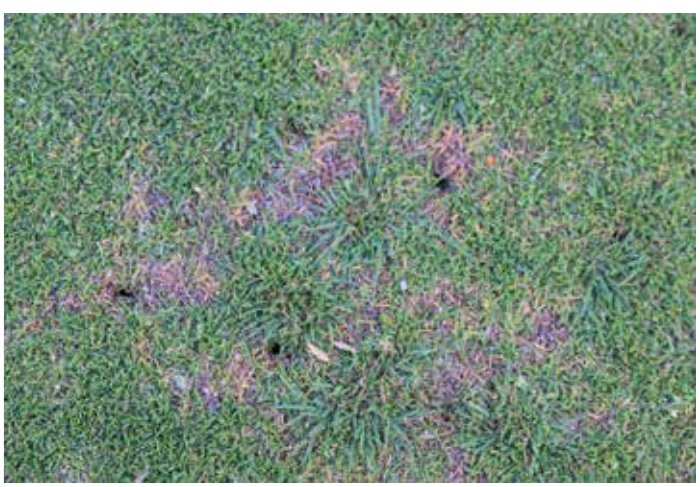

Figure 6: Close-up from knee height.