

Agricultural Media Summit 2012

Photography Workshop

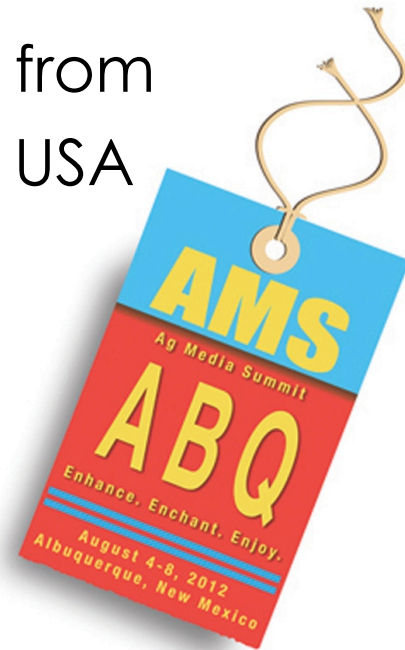
With

Michael A. Schwarz

And Bob Pearson

With generous support from

Yamaha Motor Corp., USA

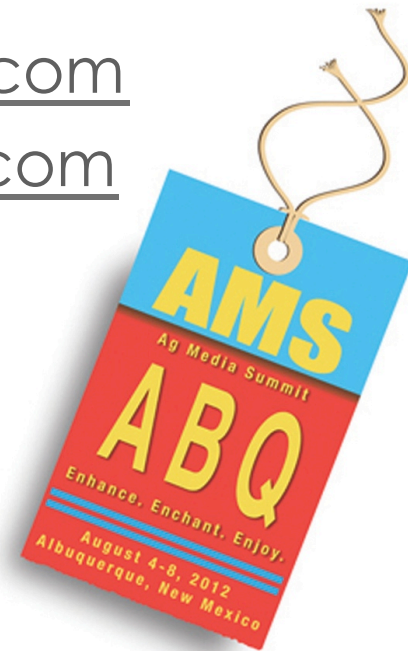


Agricultural Media Summit 2012

This program can be downloaded at:
www.michaeltraining.com/agmedia2012.pdf

www.michaelschwarz.com

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Michael Schwarz





















• Bob Pearson •







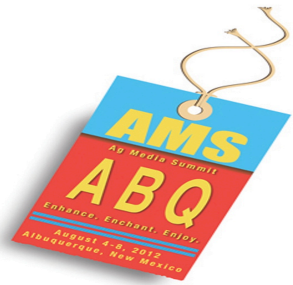












YAMAHA

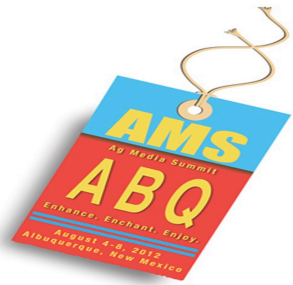
Yamaha Motor Corp., U.S.A.

- One of world's largest manufacturers of ATV/SxS vehicles with durable and reliable machines for farmers
- Nationwide network of dealer partners and corporate offices, factories and distribution centers in nine states
- All 4x4 vehicles are Assembled in U.S.A., the world's largest ATV market, at Yamaha's Newnan, Ga., factory
- Proud sponsor of Ag Media Summit and Ag Communicators of Tomorrow Scholarship program



 **YAMAHA**
OUTDOORS





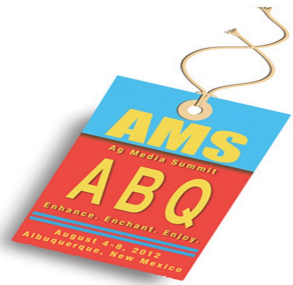
Yamaha Motor Corp., U.S.A.

Wagners Farm

- Family owned and operated
- Approximately 14 miles (30 minute drive) north of Albuquerque
- Approximately 6 acres total
- Corn maze, pumpkin patch, apple orchards
- Safe, responsible riding (gear)
- Hot and dusty (sunscreen, water)

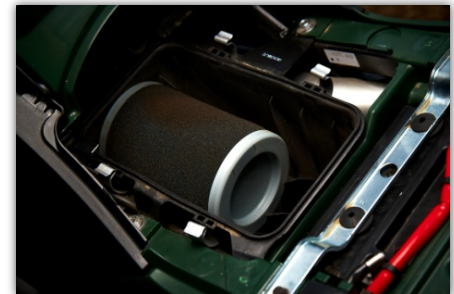


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Yamaha Motor Corp., U.S.A.

- 1. Action:** Demo Rides
- 2. Portrait:** Riding Gear, Lifestyle
- 3. Specs, Details, Product:**
Maintenance Tips, Accessories and Implements
- 4. Scenic, Lifestyle, Beauties:** Static Displays
- 5. Introduction to Safe, Responsible operation of ATV/SxS vehicles**



Your Assignments

- At the farm....
- Action- Freeze action with fast shutter speed
- Action- Pan with slow shutter speed for sense of movement
- Portraits- Posed and un-posed
- Product shots- Close-up and detail shots.
- GoPro video (optional)

- Old Town....
- Shoot wide, medium and tight to show a sense of place.

Your Assignments

- Submit 4 best photos by 5pm. Change file name to first initial, last name, sequential number.
mschwarz01
- At least 3 from the farm
- Judges Award Saturday Night: 1st GoPro as prize, 2nd ... 3rd ...
- People's Choice Award from InfoExpo voting: 1st Generator, 2nd ... 3rd ...
- Photo rights: Use in social media, editorial and marketing opportunities (with photo credit). Any national advertising usage would be negotiated separately. If you decline add "NO" to file name.

Your Assignments

- Questions?

Photographer's Checklist

Before the Shoot

Equipment:

- Lenses appropriate to subject matter
- Flash if necessary
- Packed appropriately

- Batteries charged
- Cards formatted
- Sensor clear of dust



Photographer's Checklist

On the Shoot

File Format

___ Set Quality to Raw, JPG or RAW+JPG.

Suggestion: For important images, or situations where getting the right exposure or white balance may be difficult, shoot Raw if you have the ability to do Raw image processing.

Otherwise shoot Large, Fine JPGS. Do not shoot TIFs.

Photographer's Checklist

Focus

___ Set Autofocus Mode:

Continuous (Servo) for moving subjects, single for static subjects.

IMPORTANT: This is not the same as frame rate. Frame rate should also be set to continuous for moving subjects or single for static subjects.

Photographer's Checklist

Set a Picture Style (Canon), Picture Control (Nikon)

This setting contains a subset of settings that control your color palette.

Sub-settings might include tone, hue, saturation, sharpening and brightness.

Pick a setting that is appropriate to the scene you are shooting. Can be set in Processing if shooting Raw.

Photographer's Checklist

White Balance

___ **Set White Balance:** Auto, Pre-set or a scene-specific wb. Daylight for a sunny day, cloudy for a cloudy day. Tip: never use auto white balance when shooting sunrise or sunsets. Auto will neutralize the warmth of the scene. Use cloudy or shade to enhance the warm colors. Cloudy wb warms up the scene. Shade warms in up even more. Indoors, consider using fluorescent or incandescent white balance if those are the dominant light sources. Preset white balance will give you the most accurate white balance. Use a neutral reference like a gray card designed for this purpose.

Photographer's Checklist

Exposure

___ **Set ISO:** Try to use the lowest numerical ISO offered by the camera, but be sure to use an ISO high enough so that you are able to use the shutter speed and aperture combination you desire.

Tip: Learn what the highest ISO your camera can shoot good quality at and try not to exceed this number.

Photographer's Checklist

___ Set an Exposure Mode:

Exposure is controlled by aperture and shutter speed, with ISO also a factor. There are 4 primary exposure modes:

Program (P): the camera sets both aperture and shutter speed, but you can choose the exact combination based on your needs.

Aperture Priority (A or AV): You choose the aperture and the camera sets the Shutter speed that will provide the correct exposure with your aperture choice.

Shutter Priority (S or TV): You choose the shutter speed and the camera sets the aperture that will provide the correct exposure.

Manual (M): Using the camera's exposure meter, you set the aperture and shutter speed.

Photographer's Checklist

___ Set Exposure:

Start with the exposure indicated by your camera meter, utilizing the combination of aperture and shutter speed that is appropriate to your subject matter.

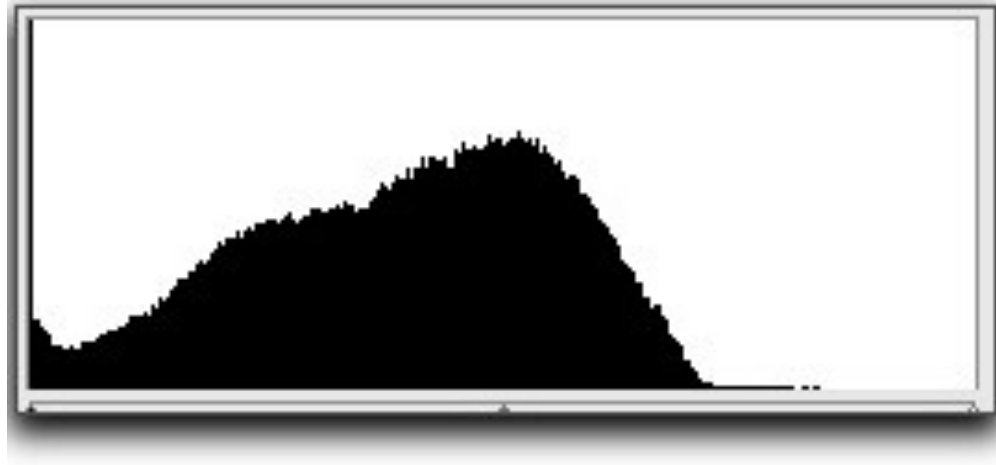
Check LCD screen to review exposure. Utilize the histogram and blinking highlight feature to help determine if you have the right exposure.

If exposure needs correcting you can make a manual adjustment if in manual exposure mode, or if in one of the automated modes, use the EV +/- button to make an adjustment. "Minus" will make your next exposure darker, "plus" will make your next exposure brighter. Don't forget to reset your EV +/- to 0 when you move on to the next scene.

Repeat steps until you've got a good exposure.

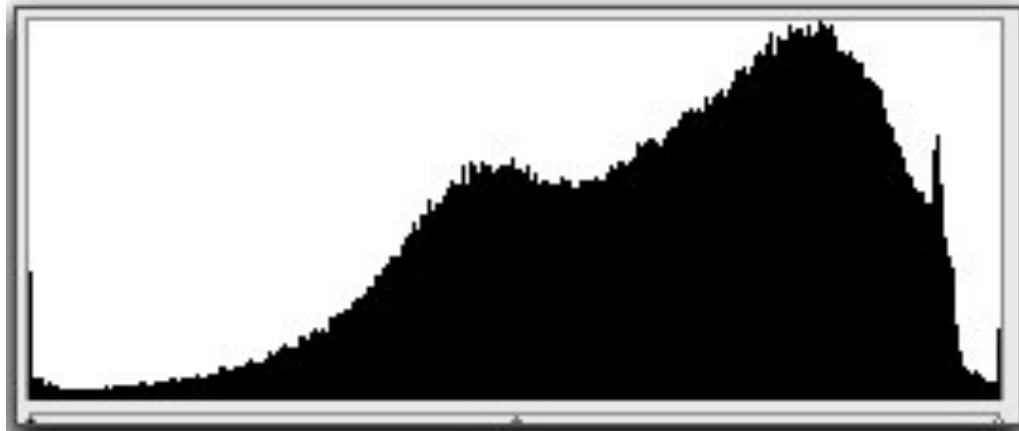
Photographer's Checklist

Histogram



Photographer's Checklist

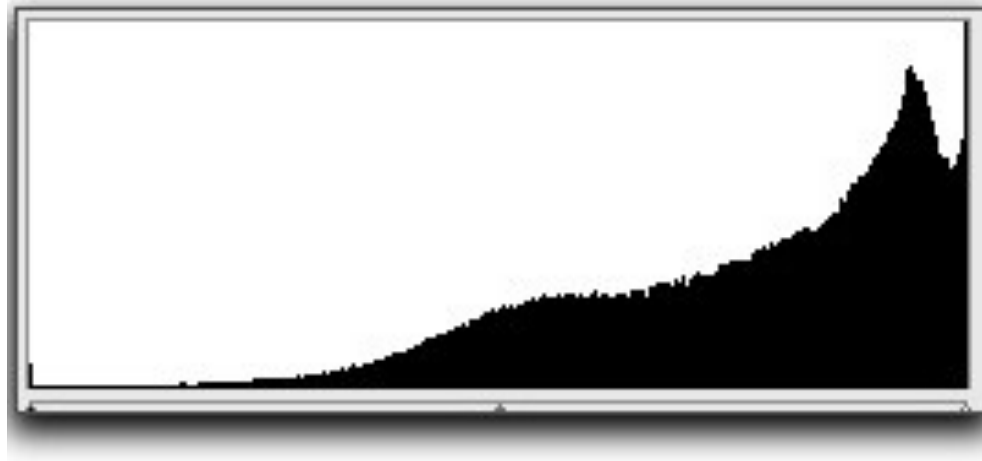
Histogram



Photographer's Checklist

www.michaeltraining.com/the-histogram-made-simple/

Histogram



Photographer's Checklist

___ **Verify focus:** Use the magnify feature to zoom into your image to confirm sharpness.

Exposure

Exposure

The act of exposing film or the image sensor to light.

Exposure

The amount of light to which the film or sensor is exposed.

The Three Pillars of Exposure

ISO

Shutter Speed

Aperture

The Three Pillars of Exposure

ISO
Sensitivity to light

Higher ISO means more sensitive to light

As ISO increases, quality decreases

The Three Pillars of Exposure

Shutter Speed

The length of time the shutter stays open, exposing film or sensor to light.

Faster shutter speed lets in less light than slower shutter speed.

The Three Pillars of Exposure

Shutter Speed

1/2 1/4 1/8 1/15 1/30 1/60 1/125 1/250 1/500 1/1000

<- Slower Faster ->

The Three Pillars of Exposure

Shutter Speed

1/15 1/30 1/60 1/125 1/250 1/500 1/1000 1/2000 1/4000
good for panning good for slow action good for fast action

<- Slower Faster ->

The Three Pillars of Exposure

Aperture

Smaller aperture (larger number)
lets in less light.

Larger aperture (smaller number)
lets in more light.

The Three Pillars of Exposure

Aperture

f/2 f/2.8 f/4 f/5.6 f/8 f/11 f/16

<- More light Less light ->

The Three Pillars of Exposure

Aperture

f/2

f/2.8

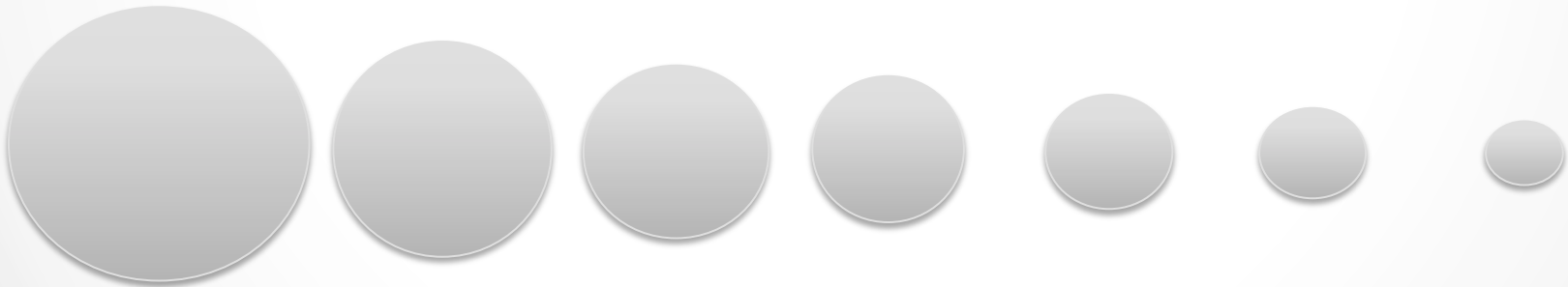
f/4

f/5.6

f/8

f/11

f/16



<- More light Less light ->

The Three Pillars of Exposure

Aperture and Shutter Speed Equivalents

f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16
1/500	1/250	1/125	1/60	1/30	1/15	1/8

There are numerous combinations of aperture and shutter speed that will let in the exact same amount of light.

ISO 200 F/11 1/500th
UNDEREXPOSED



ISO 200 F/4.5 1/125th OVEREXPOSED



ISO 200 F/5.6 1/500th
Properly Exposed



ISO 200 F/8 1/250th
Properly Exposed



ISO 200 F/11 1/125th
Properly Exposed



Fast Shutter Speed Stops Action

- Think $1/500^{\text{th}}$ or faster, $1/1000^{\text{th}}$, $1/2000^{\text{th}}$, $1/4000^{\text{th}}$

$1/500^{\text{th}}$



Slow Shutter Speed

Action is blurred, or good for panning

- Think $1/30^{\text{th}}$ or slower, $1/30^{\text{th}}$, $1/15^{\text{th}}$, $1/8^{\text{th}}$

$1/30^{\text{th}}$



Depth of Field

Telephoto Lenses- Less depth of field (shallow) than wide angle lens.

Aperture- Wide apertures (smaller numbers) have less depth of field than smaller apertures (larger numbers).

F/4 has more shallow depth of field than f/16.

F/4



F/20



F/2.8



F/16



F/4



F/22



F/2.8



F/16



Depth of Field– F/16



Depth of Field- F/4



Small aperture + slow
shutter speed. F/14 1/50th



Wide aperture + fast
shutter speed. F/4 1/800th



Lens selection



Lens Selection

Zoom lens:

A lens with varying focal lengths

Prime lens:

A lens with a single fixed focal length

Focal Length:

Determines how much magnification the lens will provide. A shorter focal length provides a wider angle of view than a longer focal length.

Lens Selection

Focal Length:

Wide Angles such as 35mm, 28mm, 21mm, 16mm

Telephotos such as 85mm, 135mm, 200mm

Important! Size of film or sensor is part of the equation that determines whether a lens is wide angle or telephoto.

With 35mm film cameras and full-frame digital cameras, a 50mm lens is considered a “normal” lens. With some digital cameras, a 35mm lens gives the same angle of view and is considered normal

Lens Selection

Focal Length:

Wide Angles: wider angle of view

Telephotos: narrow angle of view, magnification

Focal Length Comparison

12mm



15mm



20mm



28mm



35mm



50mm



80mm



115mm



160mm



300mm



Perspective

Telephoto lenses can be used to compress foreground and background.

Wide angle lenses can be used to separate the subject from the background.

125mm



28mm



12mm







Maximum Aperture

Every lens has a maximum aperture, the widest possible aperture setting.

There are variable maximum aperture lenses (f/3.5-f/5.6) and fixed maximum aperture lenses (f/2.8).

With a variable aperture lens, the maximum aperture available will get smaller as you zoom the lens.

Fast Lenses

Fast lenses, lenses with a wide maximum aperture like $f/2.8$, $f/1.4$ or $f/1.2$, let you take photos in low light without flash or give you the chance to use faster shutter speeds.

Sensor Size



Sensor Size



Sensor Size



Sensor Size



Sensor Size

1X

1.5X



Sensor Size

Nikon Sensors

Full Frame- D3S, D700

DX Cameras- all DSLRs- 1.5x Full Frame

50mm lens on film camera or full frame DSLR = 75mm lens on DX camera

24mm lens on film camera or full frame DSLR = 36mm lens on DX camera

100mm lens on film camera or full frame DSLR = 150mm lens on DX camera

Sensor Size

Canon Sensors

Full Frame- 1DS Mk II, 5D Mk II

APS-H- 1DMk IV (1.3X)

APS-C- 7D, 60D, Rebel Series (1.6X)

50mm lens on film camera or full frame DSLR = 80mm lens on APS-C camera,
65mm on APS-H

24mm lens on film camera or full frame DSLR = 38.4mm lens on APS-C camera,
31.2mm on APS-H

100mm lens on film camera or full frame DSLR = 160mm lens on APS-C camera,
130mm on APS-H

Sensor Size



Controlling Autofocus

How and Where

Controlling Autofocus

Nikon

AF-S (single)

AF-C (continuous)

AF-A (automatic)

Canon

AF-S (one-shot)

AF-C (AI Servo)

AF-A (AI Focus)

Controlling Autofocus

Nikon

AF-S (single)
Static subject

AF-C (continuous)
Moving subject

AF-A (automatic)
Camera decides

Canon

AF-S (one-shot)
Static subject

AF-C (AI Servo)
Moving subject

AF-A (AI Focus)
Camera decides

Controlling Autofocus

Nikon

AF-S (single)

Canon

AF-S (one-shot)

Focus lock by pressing shutter button half-way, then recompose.

Controlling Autofocus

Move the position of the active autofocus point.

What makes a great
photo?

What makes a great photo?

Content (subject matter)

Emotion

Beautiful

Descriptive/Informative

Graphic

What makes a great photo?

Composition-

Framing

Vertical or Horizontal,
what to include, cropping

Background- layers,

does background distract or contribute?

Motion should lead into frame.

What makes a great photo?

Lines

Do lines and curves lead the eye to the subject?

Shapes and patterns

Repetitive patterns can be interesting,
But breaking the repetition can be dramatic.

What makes a great photo?

Balance

Is the frame balanced or does it contain unnecessary dead space.

What makes a great photo?

Subject- clear not ambiguous

Background- should not distract

Light- should add to the image not take away

What makes a great photo?

Photographs of people:

- Eyes
- Hands
- Expression
- Body Language
- Composition
- Light
- Background



What makes a great photo?

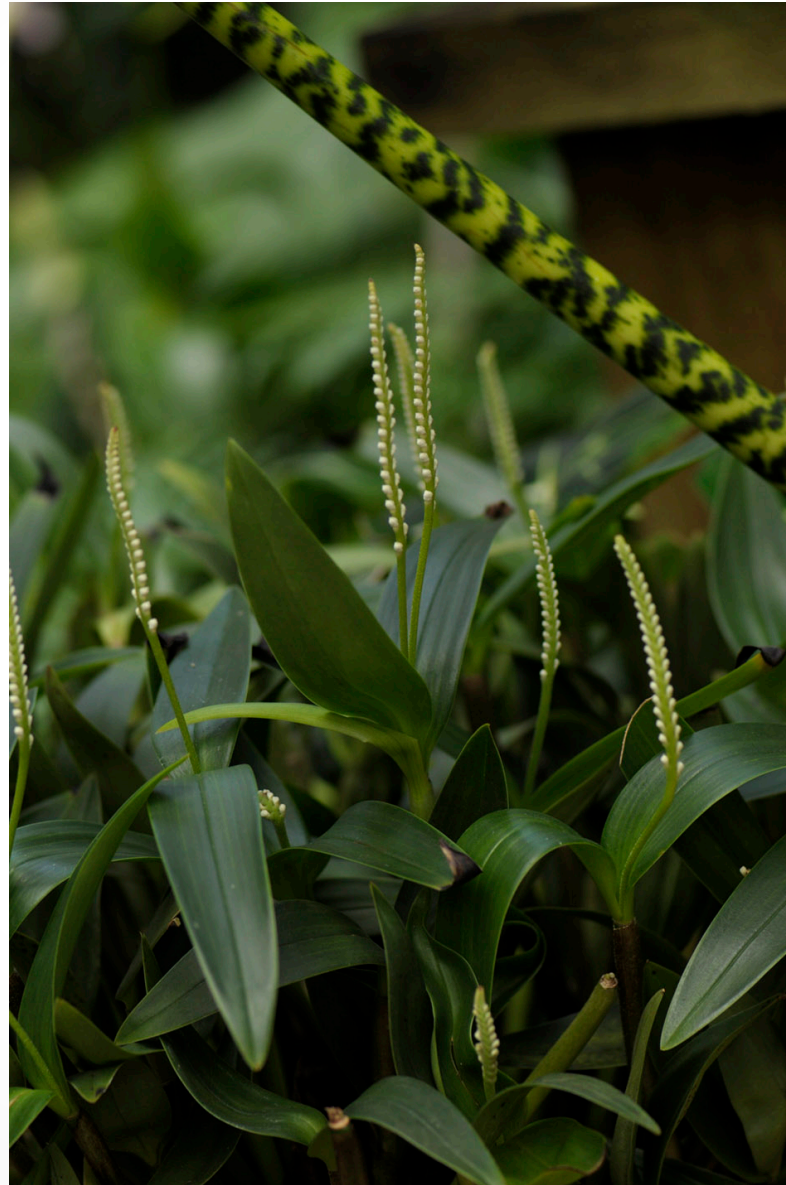


Shooting- Places and Thing

- Get Closer
- Fill the Frame
- Watch Backgrounds
- Rule of Thirds
- Be Sensitive to the Quality of Light
- Point of Interest
- Relate Layers

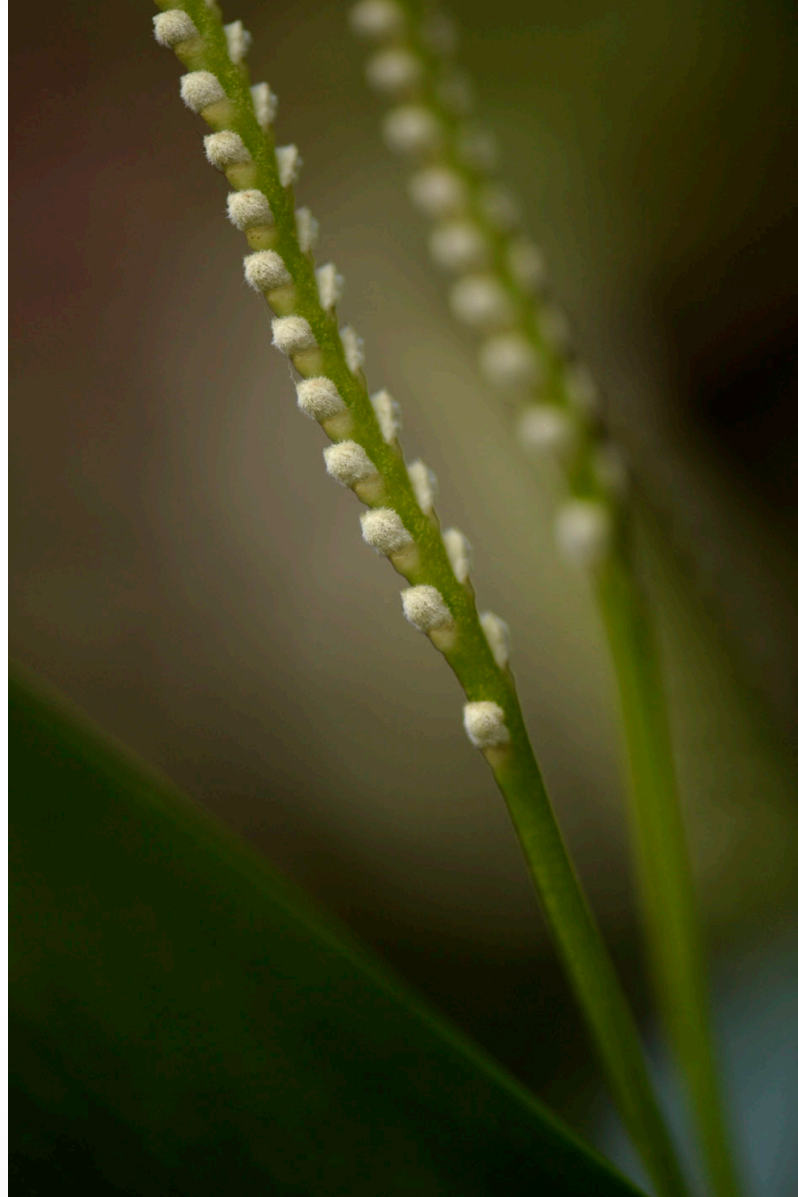
Shooting- Places and Things

- Get Closer



Shooting- Places and Things

- Get Closer



Shooting- Places and Things

- Point of Interest



Shooting- Places and Things

- Point of Interest



Shooting- Places and Things

- Fill the Frame



Watch Backgrounds



Watch Backgrounds

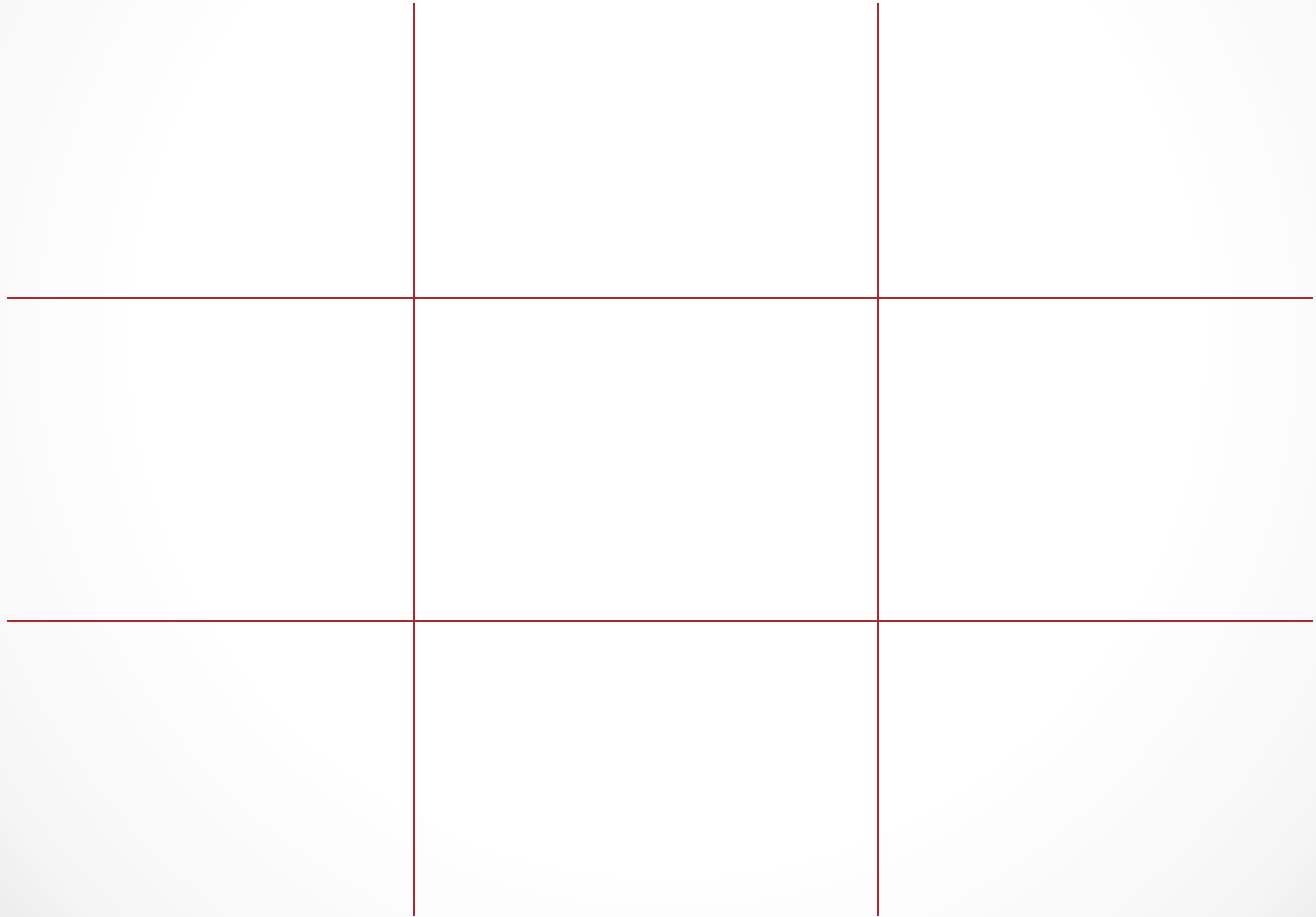


Watch Backgrounds



Shooting- Places and Things

- Rule of Thirds



Shooting- Places and Things

- Rule of Thirds



Shooting- Places and Things

- Be Sensitive to the Quality of Light



Shooting- Places and Things

- Relate Layers



Shooting- Places and Things

- Relate Layers



Shooting- Places and Things

- Relate Layers



Improving Lighting

- No Flash



Improving Lighting

- Fill Flash



Improving Lighting

- Fill Flash
- Pop-up flash effective in daylight within 10 feet
- Accessory speedlight much better
- Getting flash off camera even better

Improving Lighting

- No flash



Improving Lighting

- Flash as main light



Improving Lighting

- Flash as main light



Improving Lighting

- Diffusion or reflected light



Improving Lighting

- Diffusion or reflected light



Next Steps

- Practice, practice, practice.
- Creativity trumps technical excellence
- Creativity is difficult when stressed and worried about settings and camera function. These aspects should become second nature.
- Practice, practice, practice.

GoPro

Shoots video or stills
Time-lapse capable
Waterproof housing
Variety of mounts

Secure carefully!



GoPro

Shoots video or stills
Time-lapse capable
Waterproof housing
Variety of mounts

Secure carefully!



Divide into A & B Groups

Thank You!

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