

WICKET BLOCK HEALTH

JUNE 2013

ITINERARY

- TYPES OF FUNGAL DISEASES
- MINIMIZING FUNGAL DISEASE
- TYPES OF INSECT PESTS
- CONTROLLING INSECT PESTS
- COMMON WEEDS
- WEED CONTROL
- WEAR TOLERANCE
- SOILS
- WATERING
- NUTRITION



QUEENSLAND
CRICKET

WHAT CAUSES FUNGAL DISEASE

- MOIST HUMID CONDITIONS
- LACK OF AIR FLOW ACROSS BLOCK
- EXCESS NITROGEN FERTILIZER
- THATCH
- COVERS
- POOR MOWING PRACTICES



QUEENSLAND
CRICKET

COMMON FUNGAL DISEASES

- BLACK HELMINTHOSPORIUM



COMMON FUNGAL DISEASES

- DOLLAR SPOT



COMMON FUNGAL DISEASES

- PYTHIUM



MINIMIZING FUNGAL DISEASE

- CULTURAL PRACTICES
 - GROOMING OR DETHATCHING
 - KEEP COVERS OFF THE BLOCK AS LONG AS POSSIBLE
 - ALLOW BLOCK TO DRY AFTER WATERING
 - MAKE SURE CYLINDER MOWER BLADES ARE SHARP
 - IF MOWING WITH A ROTARY MOWER ENSURE BLADES ARE IN GOOD REPAIR. (TRY TO PURCHASE A CYLINDER MOWER)
 - BRUSH DEW OFF THE BLOCK AND NEVER CUT WHEN WET
 - MAKE SURE YOU ARE ADDING POTASSIUM AND/OR SILICA TO STRENGTHEN CELL STRUCTURE

MINIMIZING FUNGAL DISEASE

- CHEMICAL TREATMENT

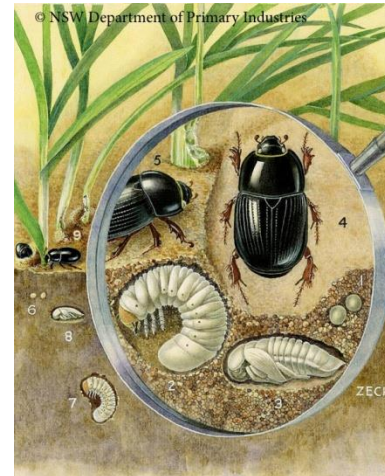
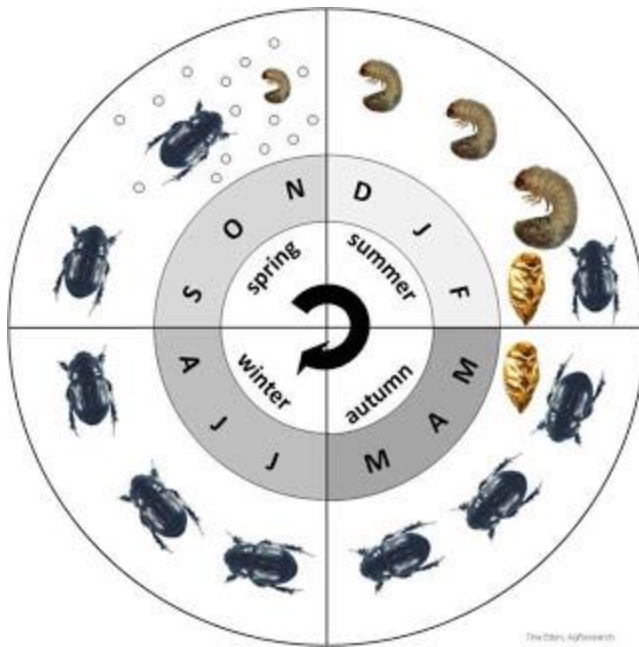
DISEASE	CHEMICAL
Black Heminthosporium	Rovral GT, Mancozeb, Daconil
Dollar Spot	Rovral GT, Daconil
Pythium	Banol, Signature, Banner Maxx

INSECT PESTS

- INVITATION FOR INSECTS
 - EXCESS THATCH LEVELS
 - SOFT LUSH LEAF
 - VERY HEALTHY TURF
 - TURF WITH WEAK CELL STRUCTURE

COMMON INSECT PESTS

- AFRICAN BLACK BEETLE



COMMON INSECT PESTS

- COUCH MITE



COMMON INSECT PESTS

- ARMY WORM



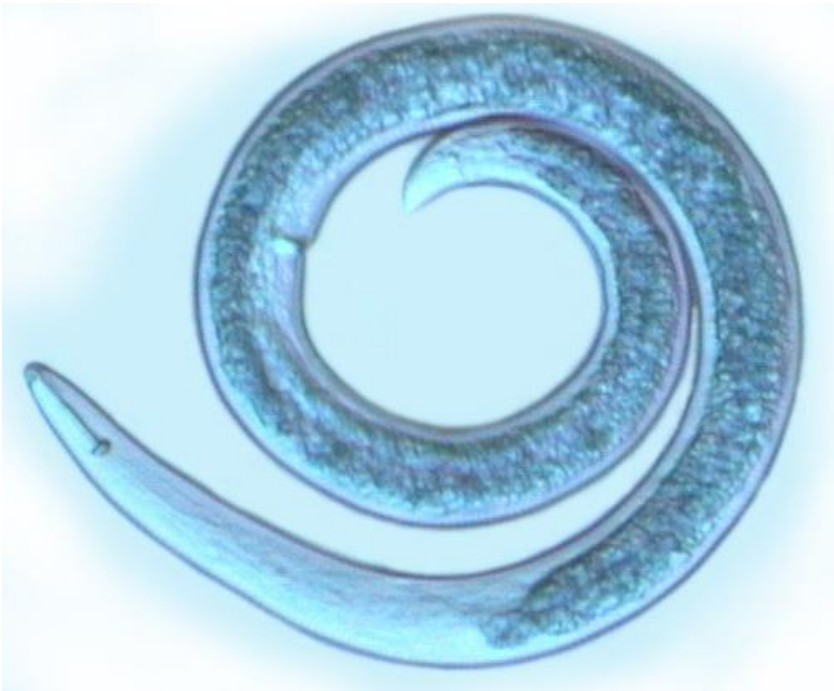
COMMON INSECT PESTS

- MOLE CRICKET



COMMON INSECT PESTS

- NEMATODE



CONTROLLING INSECT PESTS

- CULTURAL CONTROL
 - DECREASE THATCH
 - LIMIT HIGH AMOUNTS OF NITROGEN FERTILIZER
 - ENSURE POTASSIUM AND/OR SILICA ARE ADDED TO STRENGTHEN CELL WALLS
 - LIMIT LUSH QUICK GROWTH OF TURF BY MOWING REGULARLY

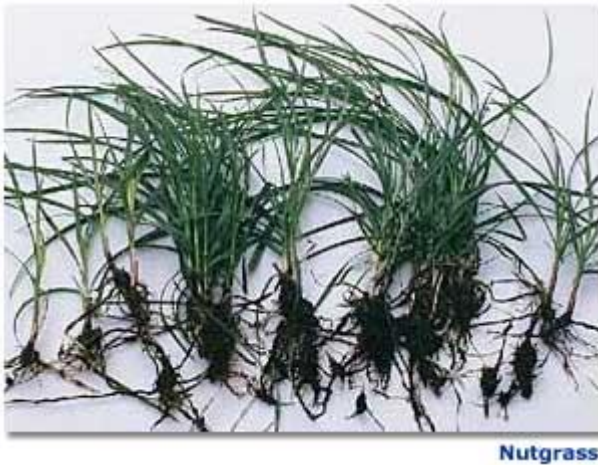
CONTROLLING INSECT PESTS

- CHEMICAL CONTROL

PEST	CHEMICAL
African Black Beetle	Chlorpyrifos, Meridian, Acelepryn, Tempo
Couch Mite	Thumper, Tempo
Lawn Armyworm	Chlorpyrifos, Meridian, Bifenthrin, Acelepryn, Tempo
Mole Cricket	Chlorpyrifos, Bifenthrin, Tempo
Nematode	Nemacur 400 (Very Dangerous)

COMMON WEEDS

- NUT GRASS



Nutgrass

Cyperus rotundus L.



Photographs by Graham Charles

COMMON WEEDS

- CROWS FOOT



Eleusine indica
Crowsfoot Grass
West Pymble
April 2003
R. Whittaker

COMMON WEEDS

- (ELASTIC) WIRE GRASS



COMMON WEEDS

- BROADLEAF CARPET GRASS



COMMON WEEDS

- WHITE CLOVER



COMMON WEEDS

- CREEPING OXALIS



COMMON WEEDS

- BLUE COUCH



COMMON WEEDS

- MULLUMBIMBY COUCH



COMMON WEEDS

- WATER COUCH



TREATING COMMON WEEDS

- MECHANICAL TREATMENT
 - REMOVE WEED BY HAND
 - ENSURE ALL PARTS OF THE WEED ARE REMOVED
 - REMOVE WEED BEFORE PLANT BEGINS TO SEED
 - ALWAYS FILL HOLE MADE BY WEED WITH FRESH BLACKSOIL
 - ENCOURAGE TIGHT GROWTH OF COUCH
 - REGULAR MOWING
 - GOOD NUTRITION

TREATING COMMON WEEDS

- CHEMICAL TREATMENT

WEED	CHEMICAL
Nutgrass	Sempra, Monument, Nutbuster, Sedge Hammer
Crows Foot	Tribute, DSMA, Dicloflop-Methyl
(Elastic) Wire Grass	Glyphosate
Broadleaf Carpet Grass	DSMA, Monument
White Clover	Dicamba & MCPA
Creeping Oxalis	Dicamba & MCPA
Blue Couch	Monument, DSMA
Mullumbimby Couch	Monument, Sempra, Sedge Hammer
Water Couch	DSMA

WEAR TOLERANCE

- FACTORS LEADING TO INCREASED WEAR
 - HIGH NITROGEN FERTILIZER USE SOFTENING THE LEAF
 - POOR WATERING TECHNIQUES. KEEPING BLOCK WET AND NOT ALLOWING IT TO DRY OUT. FREQUENT SMALL AMOUNTS OF WATER.
 - OVER USE OF WICKETS
 - HEAT STRESS
 - WINTER DORMANCY
 - NOT BEING PROACTIVE WHEN PROBLEMS FIRST APPEAR
 - USING HIGH SALT INDEX FERTILIZERS FOR A PROLONGED PERIOD
 - PONDING OF WATER IN LOW AREAS ON THE BLOCK
 - CUTTING HEIGHT OF TURF TOO LOW

WEAR TOLERANCE

- MINIMIZING WEAR
 - ENSURE POTASSIUM AND SILICA ARE APPLIED TO THE TURF TO INCREASE CELL STRENGTH.
 - FILL LOW AREAS ON THE WICKET BLOCK AS THEY APPEAR
 - USE CONTROLLED RELEASE FERTILIZERS
 - USE FOLIAR PRODUCTS TO ELIMINATE SALT BUILD UP IN BLACK SOIL
 - MANAGE ROTATIONS OF WICKETS
 - USE PERMEABLE GROW CLOTHS TO AID IN RECOVERY

SOIL HEALTH

- FACTORS EFFECTING SOIL HEALTH
 - USE OF HIGH SALT INDEX FERTILIZERS
 - NOT CLEANING DEBRIS FROM USED WICKETS
 - ORGANICS BEING INTRODUCED TO PROFILE
 - USE OF INCOMPATIBLE CALCIUM PRODUCTS TO AMEND DEFICIENCIES
 - CONTINUED WATER LOGGING
 - EXCESS DRY PERIODS
 - INTRODUCTION OF FOREIGN SOIL INTO WICKET BLOCKS (SAND, LOAM)
 - INTRODUCING UNWASHED TURF SODS
 - INTRODUCTION OF INCOMPATIBLE WICKET SOIL

SOIL HEALTH

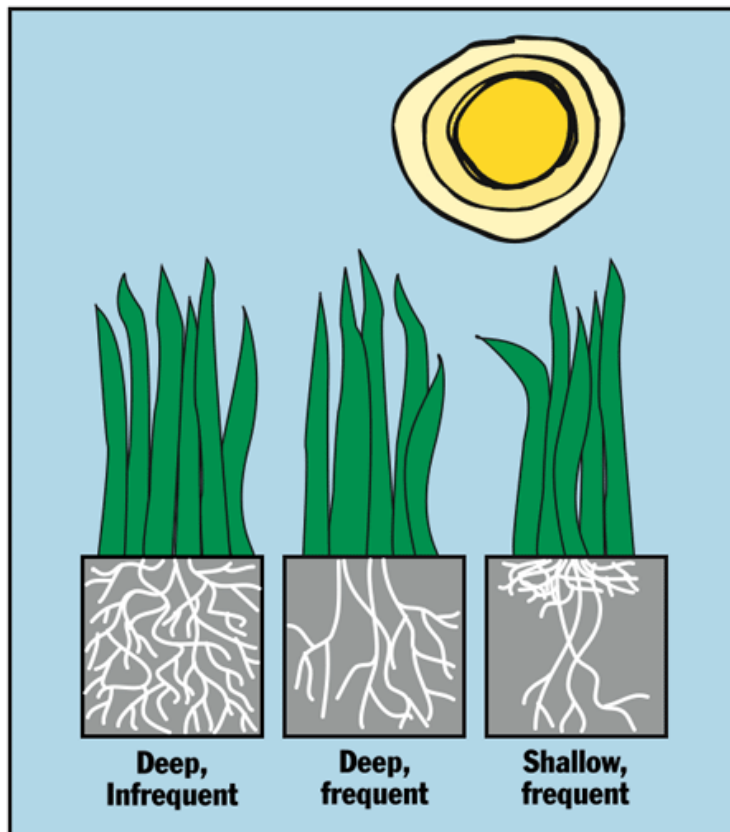
- HOW TO AVOID SOIL PROBLEMS
 - USE CONTROLLED RELEASE FERTILIZERS WITH A LOW SALT INDEX
 - CLEAN USED WICKET THOROUGHLY REMOVING ALL DEBRIS
 - ENSURE ALL CLIPPINGS ARE REMOVED FROM OLD WICKETS
 - NEVER TOP DRESS OVER CLIPPINGS (WILL FORM LAYERING)
 - USE CHELATED CALCIUM PRODUCTS OR EQUIVALENT TO GIVE THE TURF THE CALCIUM IT REQUIRES. AVOID GYPSUM PRODUCTS
 - ALWAYS ALLOW THE BLOCK TO DRY OUT AFTER WATERING
 - ENSURE ENOUGH WATER IS KEPT UP TO THE BLOCK TO PREVENT MAJOR CRACKS FORMING

SOIL HEALTH

- HOW TO AVOID SOIL PROBLEMS (CONTINUED)
 - ONLY USE WICKET SOIL TO TOP DRESS WICKETS
 - TRY TO MATCH BLACK SOIL CHARACTERISTICS AS CLOSE TO EXISTING WICKET SOIL AS POSSIBLE
 - KEEP FOREIGN SOILS AWAY FROM WICKET BLOCK. DO NOT ALLOW SAND NEAR YOUR BLOCK.
 - ALWAYS USE WASHED TURF SODS TO RETURF BARE AREAS ON WICKET BLOCKS. IT IS VERY IMPORTANT TO ENSURE THE SODS ARE CLEAN OF ALL DEBRIS

SOIL HEALTH

- WATERING PRACTICES



- WATER DEEP AND INFREQUENTLY
- ALLOW THE WICKET BLOCK TO DRY AFTER WATERING
- AVOID TOPPING UP WITH WATER TO KEEP WET
- FREQUENT SMALL AMOUNTS OF WATER WILL LEAD TO SHALLOW ROOT GROWTH MAKING IT SUSCEPTABLE TO DAMAGE IN DRY PERIODS

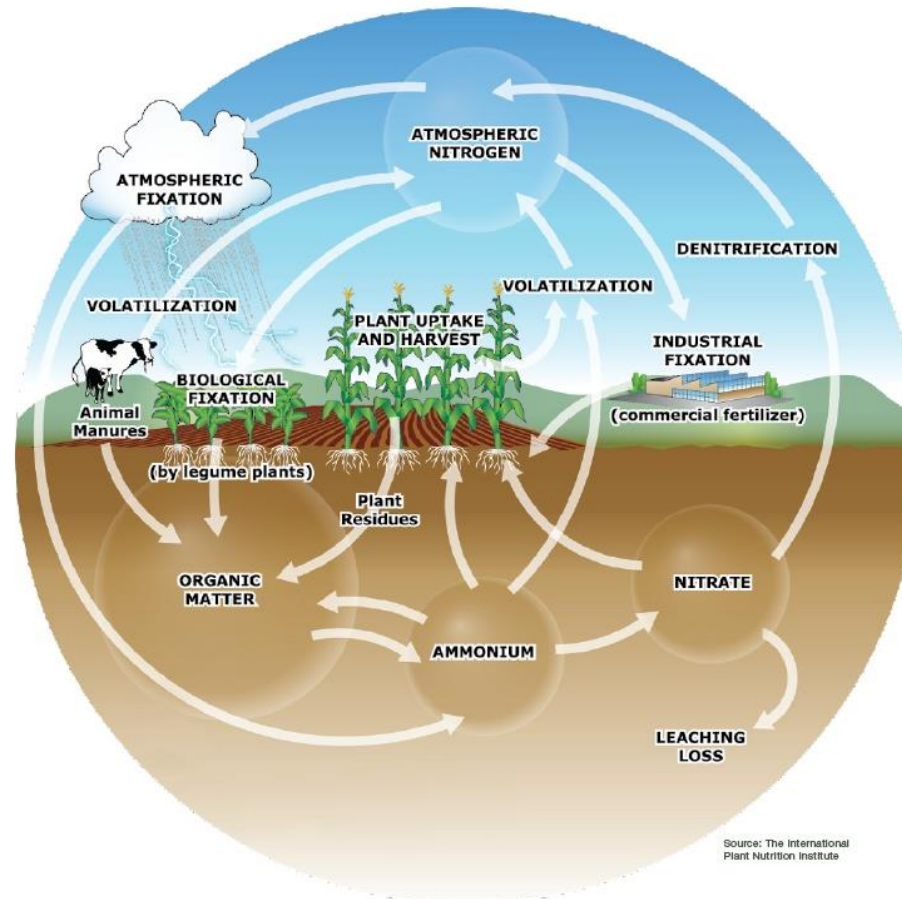
SOIL HEALTH

- NUTRITION
 - ALWAYS GET YOUR SOIL TESTED SO YOU KNOW EXACTLY WHAT YOUR PLANT NEEDS
 - CONSIDER USING FOLIAR FERTILIZERS TO GIVE THE PLANT WHAT IT NEEDS WITH OUT EFFECTING THE SOIL
 - AIM TO ADD 4Kg OF NITROGEN, 1Kg OF PHOSPHORUS AND 4Kg OF POTASSIUM PER 100m² PER YEAR USING GRANULARS
 - FOLIAR NUTRIENT AMOUNTS ARE LESS, AS 99% OF THE NUTRIENT IS AVAILABLE TO THE PLANT. THERE IS VERY LITTLE LOSS OF THE NUTRIENT TO THE ATMOSPHERE. A RATIO OF 2 : 0.5 : 2 IS MORE LIKELY
 - SILICA IS AN IMPORTANT NUTRIENT THAT CAN BE USED TO INCREASE RECOVERY AND MINIMIZE DAMAGE TO THE PLANT. IT WILL ALSO AID IN DISEASE AND INSECT RESISTANCE

SOIL HEALTH

- NUTRITION

The Nitrogen Cycle



SOIL HEALTH

- SALT INDEX
 - FERTILIZERS HAVE A SALT INDEX AND THE AMOUNT OF SALT PRESENT IN YOUR FERTILIZER WILL EFFECT YOUR WICKET BLOCK. TOO MANY SALTS AND THE WICKET WILL BECOME TOXIC AND YOU WILL NOT BE ABLE TO GROW ANYTHING ON IT.
 - AGRICULTURAL FERTILIZERS OR COMPOUND FERTILIZERS CAN CONTAIN HIGH AMOUNTS OF SALT. THESE INCLUDE FERTILIZERS LIKE AMMONIUM NITRATE, UREA, CK88, D.A.P. and 303.

6/13/2017