

Office of the Great Barrier Reef Regulations,  
GPO Box 2454,  
Brisbane, Qld, 4001

[OfficeoftheGBR@des.qld.gov.au](mailto:OfficeoftheGBR@des.qld.gov.au)

19-2-2021

## ***Submission - Draft standards conditions for new or expanded commercial cropping and horticultural activities***

### **INTRODUCTION**

Cotton Australia is the key representative body for Australia's cotton growing industry, supporting up to 1,500 cotton farming families in NSW, Queensland and now into Victoria, Western Australia and the Northern Territory.

Our members represent about 152 Australian regional communities and approximately 80% are family-owned farms. Our growers in Queensland reside through the south-west and central parts of the state, with new production areas emerging in the Gulf Catchments of northern Queensland.

A significant number of our growers operate in the Reef Catchments of the Burnett and Fitzroy and are therefore directly impacted by the introduction of these standards.

Cotton Australia is an active member of the Queensland Farmers Federation (QFF), and endorses its submission to government on this standard, however, for the avoidance of doubt, if there is any inconsistency between the QFF submissions and the Cotton Australia submission, the position of Cotton Australia is the one expressed here.

Cotton Australia has also participated in a number of industry consultation sessions with the Department on these standards over the past two years, and our input into those sessions should be considered part of our submissions.

### **GENERAL COMMENTS**

Cotton Australia recognises the importance of the Great Barrier Reef to Queensland, Australia, and the world, and acknowledges that we all have a role in protecting this natural wonder. As an industry, we also recognise the importance of responsible development, and the very real need to minimise both sediment and nutrient management to the reef.

**COTTON AUSTRALIA LIMITED**

Head Office Suite 4.01, 247 Coward St, Mascot NSW 2020 Australia

Phone + 61 2 9669 5222 Fax +61 2 9669 5511

Brisbane Level 3, 183 North Quay, Brisbane QLD 4000

Toowoomba Unit 3, 6 Rutledge St, Toowoomba QLD 4350

Narrabri Level 2, 2 Lloyd St, Narrabri NSW 2390

ABN 24 054 122 879

[www.cottonaustralia.com.au](http://www.cottonaustralia.com.au)

Given the importance of the reef and our shared responsibility, Cotton Australia understands the direction the Government is taking, but also is compelled to point out that the requirement to apply for an ERA 13A is a further diminishing of a landholder rights, and another example of “Green-tape”.

## **Fees**

Given this contradiction, Cotton Australia believes that the application/approval process for an ERA 13A should be as straightforward as possible and should come at no cost to the landholder.

It is offensive that the Government, in introducing this regulation, has in the one act removed landholder rights, and then implemented a fee that has to be paid if the landholder wishes to, in effect restore the previous right.

Cotton Australia offers the following recommendation for consideration by the Government:

### **Recommendation 1:**

- )] **The Application Fee, the Variation Fee and the Site-Specific Application Fee should be removed.** It is unjust to remove a right (develop cultivation without a permit) and then expect landholders to pay for the right to apply for a permit. This regulation is about providing a common good to better protect the Great Barrier Reef, and as such the cost should be borne by the State, through Consolidated Revenue.

## **Simplified Application**

Cotton Australia accepts that an application that is eligible for treatment as a standard application, should be very straight forward, although in the absence of access to the actual application form it is difficult to have certainty on this issue.

However, Cotton Australia is much more concerned about the application should a “Variation” or “Site Specific” application is required.

At this stage there is no real guidance on the level of detail government assessors will expect, and whether or not they will accept applications prepared by the applicants themselves, or whether they will be looking for applications prepared by consultants or other experts.

Cotton Australia contends that a “Site Specific” application of say two pages, prepared by a grower, could and should, provide the same level of protection to the Reef, as a 200-page application, prepared at great expense by a consultant.

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At the end of the day an applicant should simply be able to provide very succinct (dot point) details on how he/she believes they will meet the standards. This will not only provide an outline of the actions being taken but demonstrate that the applicant understands the requirement.

If the Government holds any further concerns, they can talk the matter through with the applicant or alternatively make arrangements to visit the property.

Cotton Australia is very concerned that applicants will end up having to invest a great deal of time, energy, and money in applications, that in themselves will provide no extra protection for the Reef.

Further, reviewing Section 8 of the document “Applying for an environmental authority to undertake new cropping and horticulture”, Cotton Australia cannot understand why the applicant needs to provide “a description of the environmental values that may be impacted by any release of fine sediment and dissolved inorganic nitrogen into the water .....

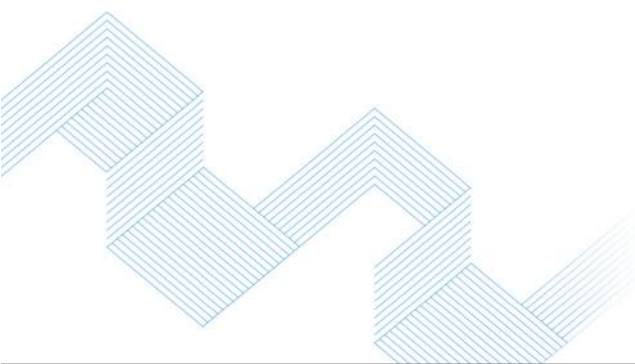
Surely, the more relevant information is what measures will the applicant implement to avoid and mitigate impacts. The very reason we have these regulations is that it is generally accepted that such run-off of sediment and nutrient is harmful, so why should the applicant have to determine the level of potential harm?

#### **Recommendation 2:**

- ) The application process for “variations” and “Site-Specific” should be kept as simple and as brief as possible. There should be no expectation that the vast majority of applications should require external, professional help, and they should focus on what steps are being taken to avoid and mitigate sediment and nutrient run-off.**

For landholders that are part of industry Best Management Practice programmes there should be a simplified pathway that allows automatic approval (including variation and site-specific) applications, or a direct exemption from having to apply for the permit.

Cotton Australia is happy to work with government to demonstrate how the industry’s myBMP requirements exceed the ERA 13A standards.



Having said that, Cotton Australia expects that the government's recognition of myBMP (and other appropriate industry programmes) would be done in an effective manner, and not put any excessive burdens on recognition, that would prove to be resource intensive for industry organisations.

Cotton Australia has attached to this submission a brief overview of our myBMP programme and highlighted key practices which correlate closely to the ERA13A standards.

To be accredited as a myBMP grower, a grower has to be able to demonstrate compliance with all applicable Level 1 and Level 2 practices and be audited by an independent auditor.

### **Recommendation 3:**

- )] **Accreditation in the Australian Cotton Industry's Best Management Practice Programme myBMP should exempt a landholder from having to apply for an ERA 13A approval, or alternatively should provide an alternative pathway for automatic ERA 13A approval, including at the Site-Specific Level.**

### **Brief Comments on the 9 Standard Conditions**

SC1: All reasonable steps must be taken to ensure the activity complies with the eligibility criteria.

*Supported*

SC2: The activity must not be undertaken within at least five (5) metres of the defining bank of a natural waterway.

*Some further clarity as to what a natural waterway would be good, but the general concept is supported.*

SC3: Prior to 1 November each calendar year a waterway buffer must be implemented and maintained between the defining bank of all downslope waterways and the edge of any adjacent cropping or fallow areas, such that it minimises sediment run-off.

*Further clarity should be provided on this requirement as to what a downslope waterway is. For example, if the natural draining point is at a particular location, but the waterway does generally*

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*traverse the bottom of a field, is it a requirement to have the buffer along the whole waterway, or only in front of the natural draining position?*

*Further, the definition of Waterway Buffer must be amended so the nominated minimum required percentage of ground cover is now more than 60%, and the landholder must demonstrate best endeavors to achieve this level. 80% is very dense vegetation, and will not be possible in some parts of the Reef Catchments in the majority of years, and even 60% will not be possible, despite landholders' best efforts, in some years*

SC4: Prior to commencing the planting of crops for the activity and when preparatory work for the activity is in progress, measures must be designed and implemented to avoid and mitigate soil loss and surface water run-off to receiving waters.

*Supported*

SC5: Where an agricultural ERA standard is not in effect for the cropping or horticulture, after commencing the activity, erosion and sediment control measures must be maintained to avoid and mitigate soil loss and surface water run-off to receiving waters.

*Supported*

SC6: Measures that avoid and mitigate the loss of irrigation water to natural waterways must be implemented and maintained.

*Supported*

SC7: Plan(s) of the activity area must be kept showing:

- a) The cadastral lot(s) boundaries; and
- b) The activity area(s) within the cadastral lot(s) boundaries; and
- c) Irrigation and drainage areas; and
- d) Natural waterways; and
- e) Receiving waters; and
- f) Downslope waterways; and
- g) Waterway buffers.

*Supported*

SC8: The plan(s) required by condition SC7 must be updated periodically so that the plan(s) is current as at 1 November each year.

*Supported with the Caveat that the applicant should be able to nominate the month of the year the Plan will be updated, rather than being required to meet the November 1 Standard. This flexibility should be part of the Standard Condition and not trigger a requirement for a "variation" application.*

SC9: The plan(s) required by condition SC7 must be provided to the administering authority on request within the timeframe stipulated by the administering authority in the request.

*Supported*

## Conclusion

Cotton Australia appreciates the opportunity to engage with the government on the ERA13A Permit, understands the government's motivation, but still has significant reservations as to the environmental value of these regulations, and therefore is determined to make the application and compliance process as easy as possible for landholders, while supporting the state aim of minimising run-off into the waters of the reef.

We strongly encourage the government to engage with us on developing a recognition of myBMP accreditation as an alternative compliance pathway, but this must be done in a manner that puts no additional burdens on both the landholder and our industry.

We strongly object to the proposition that landholders be asked to pay an application fee, so they can restore the right they previously had.

For further information on our submission, or to progress our recommendations please contact Cotton Australia General Manager Michael Murray on 0427 707868 – [michaelm@cotton.org.au](mailto:michaelm@cotton.org.au).

Yours sincerely,



Michael Murray  
General Manager  
Cotton Australia

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Attachment 1

**Extracts from the Australia Cotton Industry Best Management Practice Programme myBMP**

**Brief Explanation:**

'myBMP' is a voluntary farm and environmental management system which provides self-assessment mechanisms, practical tools and auditing processes to ensure that Australian cotton is produced according to best practice. The original BMP program began in 1997 and was reviewed and redeveloped in 2006-07 with the new online 'myBMP' system re-launched in 2010.

myBMP is the industry's assurance mechanism, a best management practice system for growers to improve on-farm production. It attends to the industry's requirement for risk management and supports industry's social licence. Through myBMP, all Australian cotton growers have a resource bank to access the industry's best practice standards, which are fully supported by scientific research and development, resources, and technical support.

By using myBMP's tools, growers can improve on-farm production performance, by:

- Better managing business and production risk
- Maximising potential market advantages
- Demonstrating responsible and sustainable natural resource management to the community.

myBMP is the result of industry wide consultation with growers, researchers, and industry bodies, taking into consideration the requirements of the cotton industry now and into the future. The initiative is supported by the Cotton Research Development Corporation and Cotton Australia.

myBMP is structured into 10 modules. Under each module are key areas. Each key area has standards listed under these supported by checklists, additional information, and resources.

Each checklist item is assigned a level. These levels are:

**Level 1** - identified legal requirements (what you must do)

**Level 2** - Industry identified best practice standards (what you should do)

**Level 3** - Innovative practices (new cutting-edge practices). Information is categorised into 10 key modules for growers:

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The 10 Modules are:

- J **Biosecurity** - for prevention, management and control of pests and diseases
- J **Energy and Input Efficiency** - for more efficient energy inputs such as electricity, fuel and fertilisers
- J **Fibre Quality** - for growing the best quality cotton possible
- J **Human Resources and Work Health and Safety** - helps growers manage employees and contractors whilst providing a safe and compliant workplace
- J **Integrated Pest Management (IPM)** - for management of pests, weeds and diseases
- J **Sustainable Natural Landscape** - for managing the vegetative and riparian assets on your farm
- J **Pesticide Management** - for all aspects of pesticide management, storage and use on farm
- J **Petrochemical Storage and Handling** - for managing fuels and lubricants on farm
- J **Soil Health** - for maintaining and/or improving soil quality and fertility
- J **Water Management** - covering water quality, efficiency of storage and distribution for both dryland and irrigated farming practices

**Ginning and Classing** modules are also available for the Australian cotton ginning and classing facilities.

With regards to the Reef Regulations the most relevant modules are:

**Sustainable Natural Landscape**  
**Soil Health**  
**Water Management**

Reproduced below are the practices covered by these modules. Highlighted practices have a very strong correlation to the ERA 13A Standards.

### **Sustainable Natural Landscapes**

Key Area: Sustainable cotton landscapes and communities

#### **Natural resources are identified and recorded**

##### **Check List:**

**Level 2** Natural resources are identified and recorded on a farm map or whole farm plan (e.g. natural resources includes: riparian vegetation, native vegetation, rivers, creeks, wetlands)

**Level 3** A whole farm plan exists which considers the management of natural resources on farm and in the surrounding landscape as part of the overall management of the farm (includes TSRs, riparian corridors, neighbouring vegetation patches)

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Key Area: Good Native Vegetation Management

**Maintain and improve the diversity of native plants and animals in the cotton landscapes**

**Check List:**

Level 2 Minimise removal of fallen trees, trees with hollows, rocks and dead standing timber as it provides habitat

Level 3 Habitat condition for biodiversity is improved on farm through re-vegetation techniques (planting vegetation or natural regeneration) that increase the size, connectivity and diversity of native vegetation on farm

Level 3 Assess and monitor the condition of native vegetation on your farm

**Carbon sequestration and emissions are considered and managed across the whole farm**

**Check List:**

Level 2 Understand different sources of carbon sequestration and emissions across the whole farm

**Maintain Groundcover**

**Check List:**

Level 1 Obtain relevant approval before modifying native groundcover

Level 2 Areas of erosion risk (e.g. uncontrolled sediment and salt movement into waterways) have been assessed

Level 3 Assess and monitor groundcover conditions

Level 3 Areas of erosion (e.g. saline areas, sodic scalds) are remediated

**Maintain or improve native vegetation connectivity in cotton landscapes**

**Check List:**

Level 1 Obtain approvals before removing or modifying native flora and fauna on farm

Level 2 Awareness of corridors, patches and single trees and how they link across the farm

Level 2 Awareness of native vegetation and the impact on integrated pest management

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Brisbane Level 3, 183 North Quay, Brisbane QLD 4000

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- Level 2 Practices are in place to protect remnant native vegetation from negative impacts such as spray drift
- Level 3 Maintain or create new native vegetation using revegetation or natural regeneration that connect existing patches of vegetation
- Level 3 Maintain or restore natural wetlands and billabongs and enhance artificial ones

#### Key Area: Riparian Management

##### Stock Management

###### Check List:

- Level 2 Stock access is managed to minimise bank instability, loss of groundcover, damage to native vegetation and promote regeneration
- Level 3 Off stream or purpose built in-stream watering points for stock
- Level 3 Exclude stock from natural riverbanks and waterways

##### Maintaining habitat and vegetation in riparian areas

###### Check List:

- Level 2 Maintaining habitat features in riparian areas for native wildlife (e.g. hollows in trees, large logs, soil cracks)
- Level 3 Maintain a range of vegetation structure (groundcover, shrubs, trees) to improve the value of services to the farming business (i.e. IPM, carbon sequestration, salinity mitigation)

##### Stabilise riverbanks and waterways to reduce erosion

###### Check List:

- Level 1 Obtain technical advice and relevant approvals before commencing any works in-stream or along banks including the removal of materials such as logs and gravel
- Level 2 Identify and manage bank instability and erosion along riverbanks (e.g. pump sites)
- Level 2 Native vegetation is retained (minimum of 30 metres along top of bank) and protected in riparian areas, natural regeneration is actively promoted

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Level 2 Leave native vegetation, logs, woody debris and rocks along banks to provide bank stability

Key Area: Environmental Weeds and Feral Pests

**Control environmental weeds and feral pests (terrestrial and aquatic)**

**Check List:**

Level 1 Declared weeds and pests are controlled according to legislative requirements and control activities are undertaken in accordance with environmental protection legislation

Level 2 Action has been taken to manage non-declared environmental weeds and pests

Level 3 Co-ordinated and implemented weed and pest control with neighbours and relevant authorities

**Water Management**

Key Area: Water Management (Irrigation)

**Information is recorded each season to help make better WHOLE FARM irrigation decisions**

**Check List:**

Level 1 A current water licence is held and the conditions are complied with, including metering and recording

Level 2 A water budget for the farm is prepared

Level 2 Water quality (pH, salinity and sodicity) is known and risks are identified and monitored for both ground and surface irrigation water

Level 2 Plant Available Water Capacity (PAWC) and Readily Available Water (RAW) have been estimated for your soil types

Level 2 Irrigation Water Use Index (IWUI) for the farm is estimated and recorded (i.e Bales/ML of irrigation water)

Level 2 Water requirements for typical crop rotations in your region are known

Level 3 Gross Production Water Use Index (GPWUI) for the farm is calculated and recorded

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Level 3 Water Use Efficiency is estimated (using IWUI and GPWUI) and farm performance is benchmarked and compared overtime

**Information is used each season to help make better FIELD irrigation decisions**

**Check List:**

Level 2 Irrigation scheduling tools are used to determine when and how much to irrigate

Level 2 Soil moisture probes are located in representative soil types determined by objective evaluation such as EM survey, aerial or satellite image

Level 2 There is awareness of deep drainage as an issue and of the measures that can be taken to reduce its impact

Level 3 In field soil variation and potential 'leaky areas' are identified

Level 3 Irrigation Water Use Index (IWUI<sub>field</sub>) and Gross Production Water Use Index (GPWUI<sub>field</sub>) for each field is estimated and recorded

Key Area: Water storage and distribution systems

**Practices are used for efficient management of storage and distribution systems**

**Check List:**

Level 1 Any planned new infrastructure which effects flow of water to or from a river complies with legislation

Level 1 Aware of State legislation for the capture of overland flow and rainfall runoff

Level 2 Storages and channels (new and reconfigure) are located, designed to minimise evaporation, seepage losses and constructed by a qualified person

Level 2 Storages are surveyed to determine accurate storage volumes

Level 2 Regular monitoring and maintenance of storages and channels for leaks and seepage

Level 2 Storages are managed to minimise evaporation and seepage losses

Level 3 Losses from storages and channels have been measured

Key Area: Irrigation system design, installation and management

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Brisbane Level 3, 183 North Quay, Brisbane QLD 4000

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## Surface irrigation systems are designed, installed and managed appropriately

### Check List:

**Level 2** Use good field design (including field length, bay size, slope, drainage)

Level 2 Flow rates and cut off times are appropriate for the soil type, run length and slope to ensure that furrows come out evenly

Level 2 Aim for uniform applications (e.g. water in furrows comes out evenly)

Level 3 A surface irrigation performance evaluation has been conducted to assess application efficiency and distribution uniformity

## Drip irrigation systems are designed, installed and managed appropriately

### Check List:

Level 2 The drip irrigation system has been planned, designed and installed by a qualified person

Level 2 The system capacity can meet peak crop water requirements

Level 2 The drip irrigation system takes into account your soil characteristics

Level 2 Water quality is known and monitored according to risk

Level 2 Training provided to the operator to ensure appropriate skills to operate the drip irrigation system

Level 2 Regular maintenance of the system is undertaken including flushing, monitoring pressure, fertigation (if used) and flow rates

Level 3 A system evaluation was undertaken after installation to check the system meets specifications

## Centre Pivot and Lateral Move irrigation systems are designed, installed and managed appropriately

### Check List:

Level 2 CPLM irrigation system has been planned, designed and installed by a qualified person

Level 2 CPLM irrigation system capacity can meet peak crop water requirements

Level 2 CPLM irrigation system takes into account the topography and soil characteristics of your site

Level 2 Water quality is known and monitored according to risk

### COTTON AUSTRALIA LIMITED

Head Office Suite 4.01, 247 Coward St, Mascot NSW 2020 Australia

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Brisbane Level 3, 183 North Quay, Brisbane QLD 4000

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Level 2 Pre-season and in-season maintenance checks of the system are undertaken including flushing (fertilisation), flow rates, filtration system and pressures

Level 2 Training provided to the operator to ensure appropriate skills to operate the CPLM

Level 3 A system evaluation was undertaken after installation to check the system meets specifications

### **Irrigation bore systems are designed, installed and managed appropriately**

#### **Check List:**

Level 1 New bore construction and decommissioning of old bores is performed in accordance with State legislation

Level 1 New groundwater bores are constructed by licensed drillers

Level 1 Groundwater licence holders are familiar with their licence conditions, and in particular any specific conditions that may apply

Level 2 Irrigation bore water salinity (Electrical Conductivity - EC) is known and is mixed with alternative water source where appropriate and available

Level 2 The groundwater level is measured at the start and end of each irrigation season using basic methods and recorded to detect potential trends over time

Level 2 Regular bore maintenance is undertaken

Level 3 Groundwater salinity and major ions have been measured at the start of each irrigation season with laboratory analysis using standard methods of collection

Level 3 The groundwater level is continuously measured using an automated logger

Key Area: Dryland Water Management (Rain grown)

### **Practices are used to take advantage of rainfall**

#### **Check List:**

Level 2 Where practical cereal crops are planted as cover crops

Level 2 Standing stubble is maintained

**COTTON AUSTRALIA LIMITED**

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- Level 2 Minimum tillage is practiced when soils are dry and tillage practices are used to minimise the impact on stubble cover
- Level 2 A controlled traffic system is in place with all tractors, boom sprays and implements following the same set of wheel tracks to minimise compaction
- Level 2 Plant Available Water Content (PAWC) has been estimated for fields and soil types
- Level 2 Pre-season stored soil moisture profiles are the key determinant of planting decisions, including field history, soil type, row configuration, plant population and variety
- Level 2 Planting row configuration is considered
- Level 2 Fertiliser inputs are matched to pre-season soil water status and are reviewed during crop growth. Additional fertiliser is able to be applied in-crop if needed while minimising soil moisture loss
- Level 2 Weeds are controlled in a timely manner
- Level 3 Water use efficiency has been estimated using kg/mm or bales/ML, where the term water means stored water and effective rainfall

Key Area: Tailwater and Stormwater Management (Irrigated and Dryland growers)

**Management strategies are implemented to prevent off-farm water quality impacts**

**Check List:**

- Level 1 All irrigation tailwater is contained either on-farm or in a shared group water supply scheme
- Level 2 Irrigation discharge points should direct tailwater away from sensitive areas
- Level 2 Where possible vegetative barriers at least 6 metres wide are maintained between cropping lands and sensitive areas
- Level 3 The grower is aware of any priority issues identified in catchment water quality improvement plans that are relevant to their farm
- Level 3 The grower participates in sub-catchment water quality sampling programmes where undertaken by a catchment group
- Level 3 Water quality sampling is undertaken to monitor the quality of run-off from the property

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## **Plans are developed and implemented to manage the impact of tailwater and stormwater runoff off farm**

### **Check List:**

- Level 1 **An effective stormwater management system is in place for managing storm events (e.g. minor, moderate, severe events)**
- Level 1 **The first flush of stormwater runoff from treated areas is retained on-farm**
- Level 1 Any planned new infrastructure to contain tailwater and/or stormwater storages complies with legislation
- Level 2 **A documented stormwater management plan exists to manage storm events**
- Level 3 Runoff from most moderate and severe storms is controlled on farm or in a shared group water supply scheme

## **Soil Health**

Key Area: Nutrition: Nitrogen, Phosphorus, Potassium and others

### **Crop nutrient requirements are managed efficiently and effectively**

#### **Check List:**

- Level 2 **Soil tests conducted to assess limiting soil nutrient nutrients and plan crop requirements (N, P, K and other nutrients) for a targeted yield. Records are kept to show soil nutrient trends over time**
- Level 2 A nutrient budget (N, P, K,) is prepared to calculate fertiliser requirements based on inputs (fertiliser, soil fertility) and outputs (yield removal, crop residue returns)
- Level 2 A fertiliser plan (right sources, right rate, right time, right place) has been developed, and records are kept to monitor trends
- Level 2 In crop monitoring (plant / leaf blade / petiole testing) used to assess nutrient levels and adjust fertilisers inputs based on seasonal conditions and crop yield
- Level 3 Farm trials are conducted to verify fertiliser management practices
- Level 3 Variable rate fertiliser application practices are adopted
- Level 3 Crop rotation systems including nitrogen fixing legumes are adopted when practical

Key Area: Soil Structure

**COTTON AUSTRALIA LIMITED**

Head Office Suite 4.01, 247 Coward St, Mascot NSW 2020 Australia

Phone + 61 2 9669 5222 Fax +61 2 9669 5511

Brisbane Level 3, 183 North Quay, Brisbane QLD 4000

Toowoomba Unit 3, 6 Rutledge St, Toowoomba QLD 4350

Narrabri Level 2, 2 Lloyd St, Narrabri NSW 2390

ABN 24 054 122 879

[www.cottonaustralia.com.au](http://www.cottonaustralia.com.au)



## **Soil structure is assessed, maintained and improved**

### **Check List:**

- Level 2 Soil organic carbon levels are monitored
- Level 2 The soil surface is monitored visually for any structure issues or changes such as compaction, dispersion or hard setting
- Level 2 Minimum tillage practices and crop residues are maintained where appropriate to maintain soil organic matter and reduce soil erosion
- Level 2 Prolonged bare fallows should be avoided
- Level 2 Soil compaction is minimised by managing appropriate selection of machinery, implements and timing of operations
- Level 2 Soil sodicity (ESP) is monitored from soil testing
- Level 2 Soil salinity (EC) is monitored through soil tests and remedial strategies considered
- Level 2 The quality of irrigation water and its effect on the presence / risk of salinity, sodicity and dispersion is considered and managed
- Level 2 Sub-surface structural issues, causes and potential structural problems are identified through assessing soil pits and appropriate laboratory, soil and water tests
- Level 3 Field variability issues are recognised, causes are explored and where appropriate addressed
- Level 3 Where available, knowledge from local water table monitoring programs is used to assist farm management decisions
- Level 3 Cover cropping is implemented in rotations to improve water infiltration, soil health, aggregate structure, water logging and mitigate erosion

## **Erosion risks are monitored and managed**

### **Check List:**

- Level 2 **Areas at risk of erosion have been identified, assessed, recorded and regularly monitored**
- Level 2 **Where erosion events do occur, action is taken to prevent their re-occurrence**

