

CRICKET PITCH PREPARATION

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A curator's aim during pitch preparation is to produce a flat compacted surface with a fine even cover of couch grass (Cynodon dactylon). This provides a bowler with consistent regular bounce, allowing the ball to come on to the bat; this makes for better batting conditions.

To achieve a curator's aim, I offer the following points as being paramount to successful pitch preparation:

(a) A clay soil with good grass growing potential, strong enough to give regular and even bounce (at least stump high) when compacted and dry.

(b) A surface free of undulations so the drying process is even and the ball does not deviate.

(c) An even covering of fine grass to hold the soil together, to assist drying of the sub soil and presentation.

(d) An even saturation of the clay soil prior to any rolling.

(e) The use of the correct weight roller at a given moisture content, for complete compaction of the soil.

As curators, we have a responsibility to provide the best playing surface possible and the following points and procedures are presented for information and comment.

Over the years, I have kept data on each pitch used for First Class fixtures at Adelaide Oval, i.e.

- Teams and date of match
- Percentage grass cover at start of preparation
- Recovery of grass after match
- How the pitch played (evenness of bounce)
- Players' constructive opinions
- Any unusual problems during preparation

This data enables the selection of the most suitable pitch to use from the square of eight at any given time.

The following procedures will explain my pitch preparation, with differences being due to timing and the varying standard of matches. Care must be taken not to stress the grass by over-cutting and rolling.



Test Pitch

Takes eight weeks of preparation, with the last week being much more intensive. Stages outlined later.

One-Day International Pitch

Much the same as a Test Pitch, but the cut is shorter and let dry out, resembling the second or third day of a Test Pitch, without the playing traffic.

Sheffield Shield Pitch

Three weeks preparation, with the last week being more intensive.

Club Games

Normally one day a week, Saturday/Saturday, but can be two consecutive days, Saturday/Sunday. Two weeks preparation, with the last week intensive, but of course, at this level of cricket time, labour and equipment are limited.

For Saturday Club games, I use the following procedure:- cut and water Wednesday, with at least two light (1/2 to 2 cwt, or 25 to 100 kg) cross rolls early Thursday, then step up to the heaviest for the rest of Thursday, Friday and Saturday.

Practice Pitches

It is imperative to share the wear by shifting and using new practice pitches every week. That applies to any pitch. For example, at Adelaide Oval there are four sets of 12 practice pitches, equaling 48, with three groups of four practice pitches in each set, equaling 12.

Therefore, each group of four is used on three consecutive nights, Tuesday, Wednesday and Thursday, every third week. This enables control of the growth of the couch grass, keeping it fine and manageable.

PITCH PREPARATION

Having explained the preparation timing on varying standard cricket pitches, I will commence with the actual preparation.

DAY 1

Measure Pitch.

Once the pitch has been selected, measure out the required 10 feet, or 3.048 metres, cut of the pitch.

First Cut of Pitch.

Make sure the cylinder and blade on the mower are cutting correctly. Then set the cutting height at three sixteenths of an inch, or 6mm.

Using string lines to keep the pitch edges straight and presentable, double cut the dry pitch. It is important to keep the grass height on the pitch table controlled and manageable at all times.

Never cut too low and expose the crown of the grass. The idea is to take the cutting height down in stages and push the required grass into the damp surface of the pitch during preparation.

If thatch or Kikuyu (*Pennisetum clandestinum*) is an obvious problem, a light scarifying is required just touching the soil; then cut.

Watering the Pitch.

Apart from good soil and grass cover, water is the most; important ingredient in preparing a good pitch.

Preferably in the evening, slowly soak the whole pitch table. Deep, even water penetration is imperative for correct preparation.

It is a bad practice to flood a pitch in the middle of the day during extremely hot temperatures, because of burning the grass and salt accumulation due to evaporation. Two millisiemens (2 mS) is an undesirable salt level for the growth of couch grass. Recent salt tests on Adelaide Oval in

February 1983 showed bare areas in the worn block holes to be 1.8 mS, yet well grassed areas measured 0.9 mS.

(0.3 to 0.5 mS, being the desirable level for the growth of couch grass in pitch soils).

This is another reason why it is so important to retain a good cover of grass at all times.

DAY 2

Next morning, if the pitch has dried out, re-water, or if the pitch is dry at one end, hand water to even the moisture content.

If this is not done the pitch will be two-paced or crumble and turn.

Grassing.

While the pitch is still damp and has no water pooling on the surface, lightly sprinkle over fresh dry grass cuttings. All pitches require a little.

The grass cuttings serve four purposes:-

- (a) stop the pitch clay soil from sticking to the roller
- (b) help hold the moisture and seal the surface
- (c) help presentation by camouflaging any bare areas
- (d) help to give an even drying of the soil profile

Rolling

Light Weight Roller: The first roll should be done with a light weight roller (1/2 to 1 cwt, or 25 to 50 kg). Never push a wave of water in front of a roller during preparation, as this washes grooves in the surface, so STOP and wait till it dries off more, Pitch preparation cannot be achieved by rolling to a time schedule. The art is to use the desired roller at the correct moisture level.

Now the most important part of building a pitch begins. This process, called "Cross Rolling", flattens the pitch and helps remove any corrugations.

This first roll will give an indication of the even water content. If surface areas are drier than others, STOP and hand water again, remembering an even water content in the pitch is imperative. If this first cross roll is successful, work back two or three times. The first light rolling seals the surface, holding the moisture underneath. As the pitch dries sufficiently, the weight of the roller is increased.

Flat soled shoes must be worn at all times when working on damp pitches.

Two cwt (100 kg) roller: Give two to three cross rolls 1/2 to 1 hour later, adding a light sprinkling of grass cuttings if necessary and always keep the rollers clean from soil and grass cuttings that may stick.

Eight cwt: (400 kg) roller: Give two cross rolls, 1 to 2 hours later. By this time, the grass should be pushed well into the soil of the pitch.

This is how to achieve a surface which has a fine leaf cover with soil showing through. This prevents the ball from excessive cutting and seaming, allowing the ball to come straight on to the bat.

One and half to 2-ton (1/2 to 2 tonne) heavy roller: Up and down.

Within 4 to 5 hours after starting with the lightest roller, the pitch should still be soft enough to dent when pressed with the thumb. If this roller in low gear is not creasing the soil and pushing the grass even further into the surface of the pitch, STOP! It has dried out too much and needs to be re-watered by hand. When rolling up and down, move across the pitch left to right and right to left, one to two feet at a time, for approximately 20 to 30 minutes. Do not roll from the same side or end every time; change the approach each time you roll. On a normal day, this first heavy roll would be around 11 a.m, to 12 noon, at least two more such rolls are required that day, the last one in top gear.

DAY 3

Lowering the Cutting Height and More Heavy Rolling

Next morning, if the creases have disappeared from the previous day's rolling, double cut the pitch halfway between the first and final cut, one eighth of an inch, or 4mm. If the creases are still visible, give the pitch another heavy roll to remove them. Do not cut until the creases have been removed and always cut just before the pitch is rolled. (The grass has time to stand up and more grass will be removed. At times, the pitch may need a hard broom to stand the grass up.) During the course of the day, the pitch will need three more, 20 to 30 minutes, heavy rolls until it is flat and hard. At this stage, cracks would have appeared and over rolling a dry hard pitch will crush the grass, causing undue stress on its growth.

It is time to give the pitch another clean up cut at one eighth of an inch, or 4mm, and water to revive the grass until the final week of preparation.

FINAL WEEK OF PREPARATION

The previous week or weeks cutting, watering and rolling procedures must be carried out this week, but extra hand watering and heavy rolling as the pitch dries may be required to keep the cracks closed and the soil compacted.

Cracking is a natural characteristic of pitch clay soils. They will not cause any undue problems provided they do not lift, break or open too much.

Areas void of grass crack in small (1 to 2 inch, or 25 to 50mm, diameter) formations on the surface and remain soft underneath. On the other hand, evenly grassed areas hold together, crack in larger formations and dry deeper, due to the couch grass roots sucking the moisture out of the soil, hence a more even, higher bounce.

DAY OF MATCH

On the morning of the match, double cut the pitch at the final weight one sixteenth of an inch (2mm) then a 20 to 30 minutes final heavy roll.

At this stage, if the pitch preparation has been executed correctly, that is if a fine textured grass cover has been pushed well into the soil, the pitch should have a white, glassy effect, provided the pitch is between you and the sun.

Now measure 66 feet (20.117 m) from center of middle stump to the center of middle stump at the other end and mark the pitch out using a two-inch (50mm) brush in a water and whiting mix. Be careful to keep the lines straight and square with the cut of the pitch.

Presentation is most important.

COMPLETION OF THE MATCH

Clean all the grass cuttings off the surface of the pitch with a broom or vacuum cleaner and slowly soak the pitch table as soon as possible after the match. During the next two weeks, it is very important to plant and re-level the pitch as required to bring the pitch back to its original unprepared state.