

Starting '04 on the Front Foot

Managing Your Business and Human Resources



Human and business resource management expert Terri Clementson looks ahead to 2004 and gives superintendents some tools to plan and manage the challenging year ahead.

Most superintendents I've spoken with already in 2004 are working hard to make it through a tough summer.

Water resource management problems are creating a more complex backdrop than usual in the busiest time of the year. Many are also now thinking ahead and trying to anticipate the work associated if it's a dry winter. There is little time to think long-term right now.

Most superintendents say that planning, research, budget forecasting and any kind of long-term development of the course or their team realistically has to wait for space and time in winter. They also acknowledge that they need to do more of this and never seem to get that time.

It may seem unrealistic, but now is the time to be thinking, researching and planning the year ahead. Seasoned superintendents know that, even though the timing couldn't be worse, those around them think "new year, new plans".

This article gives you a simple template to ensure you are ready with clear thinking; information and a clear direction to meet the New Year zeal of course committees, treasurers, members and staff who see it as the start of their new year, not the middle and peak of yours.

A Visual Plan – Your Best Defence

The most common tension, frustration and time consuming distraction for a superintendent can be managing the input and influence of committees and members who feel they are managing the course, instead of overseeing the quality of your management of it.

Many committee members will assume control if you don't clearly take it. A simple visual plan for all to see says "We've got this under control". It also offers a clear signoff tool that may help curb a committee's desire to change priority or direct resources to what are, in the bigger scene of things, relatively minor matters that take attention and resources away from managing significant risks.

A simple visual tool can be a great anchor-point, not only for committees but also for your team.

A Simple Template

Planning doesn't need to involve lots of time and long wordy documents that sit on shelves gathering dust. The best plan is visual, simple, clear and can be viewed at-a-glance.

Planning really just involves using a structured approach to put a few pegs in the sand about changes you'll be making this year and giving some clear thought to the risks you

need to manage. The easiest way to organise your thoughts is to work methodically through each area of business management responsibility associated with your role. These include:

- The club and course's current direction and focus;
- Operations management;
- Finance;
- Marketing;
- Human Resources;

You might also consider the drivers you have to work with - external influences and you and your team's readiness for change. Managing these last three factors will determine your capacity to execute the plans you've made.

In the box opposite is a simple template. It offers you prompts to consider. Work your way through each heading checking, and ideally jotting down a few ideas about, how you plan to respond to or lead changes in each area.

Control, Modelling Leadership and Managing Others' 'Buy-In'

The best results are often achieved when this type of analysis is done quickly and then thrown over to the team behind you to add their ideas and give some input before it looks like it's cast in stone.

It would be nice to do lots of analysis – gather data about weather trends; monitor and track player traffic and behaviour for impact on surface and player satisfaction etc – but quite frankly, club environments and money for research probably only warrants that level of detail every five years.

Documenting your planning on butcher's paper using the template as a prompt means it is a living document. You can take it into committee meetings to discuss your plans in a practical and efficient matter then take it back and put it up in the work area, as a guide.

There really isn't much benefit in throwing resources at this and getting too glamorous with PowerPoint or a detailed report. It may give some comfort that it looks good, but using the time to develop neat content will pay a better dividend for your effort.

The idea of getting plans down in January in a form you can use to brief others at the start of their year is designed to demonstrate;

- That you *have* already done some clear, solid thinking and planning – to lead those who are helping drive the course's development (secretary manager, committee and staff);

- That *you* are actively leading the area, managing your business not just working in it;
- That the planning process is dynamic and collaborative. Edit the model as you discuss it; add ideas; expand it if necessary; and
- That once agreed, the plan becomes the roadmap for the year and remains in use, displayed and referred to regularly. Only extraordinary unforeseen issues should call for action outside this plan.

Turn Plans into Reality

The final step is to take the plan and break it into sub-steps for the seasons. Take each area, jot the objective and then outline the steps to achieve the objective in each sector for each season.

For example, there are multiple issues to consider in Operations Management. One may be the need to work on looking at sustainable grass use on your course. The task involves multiple steps: researching alternatives; costing alternatives; doing a few trial plots in optimal weather; reporting on them over changing seasons; getting member feedback on the trial holes then putting the decision to the committee for implementation at the right time to enable optimal yield.

Plotting what you will do towards this objective each season gives those involved a sense that objectives need to be broken down into action steps and the timing of their execution, and associated expenditure, planned.

Planning is a simple process. Procrastinating about it or treating it like a huge exercise that



competes for limited time will mean you never make time to think and plan. Failure to plan gives others an 'in' to think they need to do it.

Using a streamlined approach; racing through it with a few hours thinking and turning it into a practical map for the year can set a fabulous tone and inspiration for the year ahead.

If you wait till winter you've missed the New Year wave and sure enough, someone else will be trying to push you to implement the plans they had in their head in January for your course! Do it now! Start the year on the front foot.

Terri Clementson is a consultant with McArthur Management Services in Melbourne. 📍

COURSE AND TEAM

Direction and Focus

- 12-month course priorities. Specify changes to fairways, greens, tees etc;
- Define seasonal priorities and 'fit' with course calendar/events;
- Committee's top six priorities
- Member-interest areas;
- Wider club objectives and assistance;
- Potential risks ahead –eg: compliance, legislation;
- Industry trends to be watched/adopted.

Drivers

- Changes to:
 - Motivation/morale of staff;
 - Leadership style in use;
 - Physical environment (non course);
 - Committee style/information supplied;
 - Resources use.

Operations Management

- Changes in efficiency of key activities;
- R&D plan;
- Drought impact forecast/responses;
- Long-term water action plan (and budget).
- Construction works (disruption timing).

Human Resources

- Ability to attract/retain great staff;
- Training plans for staff;
- Pay and conditions;
- Review staff performance, give feedback;
- Ask for staff feedback/ideas/share the load;
- Celebrate their success. Say 'thanks' often.

Marketing

- Marketing plans of the club;
- Member communication plan;
- Image of the team/unit;
- Perception of the course and club by professional peers/associations/suppliers.

Finance

- Half-year budget position;
- Relationship with treasurer;
- Critical long term capital required (five years);
- Cost changes on horizon (from suppliers).

Key Relationships

- Relationships with staff;
- Members and committee;
- Peers in the sector – allies;
- My industry association;
- Secretary manager;
- Bureaucrats re: compliance.

External Influences

- Compliance action to take (EPA, State, OH&S);
- Changing player expectations/technology;
- Information required from industry associations;
- Local council and media affecting course.

Readiness for Change

- Ways to recharge team's batteries after summer;
- Ways to clearly describe your vision for changes;
- Identify where the stress will come from;
- Letting staff take ownership for a particular area;
- Ways to keep inspiring my team about the future.

Employment Contracts – What You Need To Know

Managing Your Business and Human Resources

LORNA GELBERT



DO YOU NEED AN EMPLOYMENT CONTRACT?

Every employee has an employment contract whether or not it is in writing. An oral contract will come into existence when a prospective employee applies for a position in answer to an employer's advertisement in a newspaper, an interview takes place, the employer offers the job to the candidate and the candidate accepts the offer. The offer and acceptance are sometimes in writing, sometimes verbal.

The new employee then starts work and is paid by the employer and both parties are then performing the contract.

This oral contract represents an agreement reached between the employer and the employee. Once the contract is made, one party cannot change the terms and conditions of that contract without the consent of the other party. For example, the employee cannot insist on working different hours; the employer cannot pay the employee less than was agreed or demote the employee.

If there is no written contract the terms and conditions of the oral contract will be determined in a number of different ways, for example;

- As set out in any letter of offer (eg: the position offered, the wage or salary payable, allowances such as for a motor vehicle, the specific duties of the position);
- An award or industrial agreement (eg: minimum pay rates, leave entitlements, overtime and penalty rates, minimum notice periods on termination, redundancy);
- By law (eg: long service leave entitlements, minimum terms in the Workplace Relations Act 1996 (for Victorian employees));
- Conduct and practice. That is how the contract of employment has been performed during an existing employment relationship (eg: when leave is taken, the policies and procedures of the employer, payment of redundancy pay at certain rates by the employer to previously retrenched employees);
- Terms and duties that are implied by law.

WRITTEN EMPLOYMENT CONTRACTS

Written employment contracts are far more prevalent than in past years. Many employers now have standard employment agreements and position descriptions or duty statements for their staff and now require an employment contract to be signed.

If an employee is covered by a State or Federal Award, an employment contract will not override that award unless it is:

- A Certified Agreement (CA), which is an agreement made between the employer, employees and, usually, the employee's union. It is certified by the Australian Industrial Relations Commission (AIRC); or
- An Australian Workplace Agreement (AWA) which is an individual agreement negotiated between the employer and the employee and registered with the AIRC.

Both Certified CAs and AWAs are used to build flexibility into the award that governs the working relationship. The AIRC measures these agreements against an applicable award to ensure the employee suffers no overall disadvantage under the terms of the employment contract.

Employment contracts that are not CAs or AWAs are referred to as common law contracts. If an employee is covered by an award and has also signed a common law employment contract, the employee will have the best of both worlds. If the award condition is better than the contract, the award condition will prevail. If the contract condition is better than the award, the contract condition will prevail.

NEW EMPLOYEES

If it is a condition of the offer of employment in a new position that the employee will sign an employment contract then the employee will have no grounds to refuse to sign a reasonable contract.

Before commencing work however, prospective employees must make sure they obtain a copy of the contract, read it very carefully and, preferably, have a lawyer advise them on it.

There will almost certainly be a number of clauses in it that could have a significant effect on the way in which the employment relationship will continue. As these matters may not be covered by the award, they will apply if the contract is signed.

The employee must also ensure that all relevant matters are included in the contract.

The advantage of having a well written employment contract is that the terms and conditions of the employment will be clear and will be binding on all the parties.

It is often the case, however, that the terms are not expressed clearly and causes ambiguity that creates conflict. If you are unclear about the meaning of any clause in a contract, ask for clarification and have the wording changed so that it is clear.

Employment Contracts – What You Need To Know

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EXISTING EMPLOYEES

An oral employment contract is a legally binding agreement just like any other contract. It creates legally enforceable obligations on both parties.

If an employment relationship is already being performed under an oral contract of employment, the employer cannot force an

employee to sign an employment contract – particularly where the terms and conditions of employment may be different to and less favourable than the oral contract already in existence. If an employee signs that contract, they will be bound by its terms.

If the terms of the written contract are different to the previous oral employment

contract, the signing of the contract will be evidence of an agreement to vary the previous oral contract.

For example, most employment contracts have termination clauses in them that give either party the right to terminate the employment on giving a specified period of notice (eg: one month).

The Workplace Relations Act and most awards provide for minimum notice periods of between one and five weeks depending on the length of service of the employee. However, if an employee has been employed for a long period, say 10 years or more, the common law requires an employer to pay "reasonable notice" which would be much more than the minimum notice.

A long term employee may be entitled to three, six or even up to 12 months' pay in lieu of notice in certain circumstances. If that employee signs a contract agreeing to accept only one month's notice, he or she may be limiting their rights at common law.

Consequently, before signing any employment contract, existing employees must obtain independent advice to ensure they are not unwittingly signing away entitlements.

IMPLIED DUTIES AND TERMS

In addition to the express terms in an employment contract or award, the law implies into the employment relationship other terms that are binding on the parties including;

The duty to work in a skilful and competent manner.

Employees must carry out their duties to the best of their ability.

The duty to obey the employer's lawful commands.

An employee is required to carry out all reasonable commands of the employer. What is reasonable will vary according to the nature and duties of the employment but, generally speaking, commands that relate to safety in the workplace, standard of dress, observing the employer's practices, procedures and policies will be considered reasonable.

The duty to provide faithful service.

An employee must not behave in a way that will harm the employer or its business. An example of this would be an employee who sets himself or herself up in competition.

An employee who leaves the employment and then sets up in competition will not necessarily be in breach unless there are restraint provisions in the employment contract that would prevent him or her from doing so. If there are restraint provisions, they will be binding on the employee provided the restraints are reasonable.

The duty to keep the employer's information and trade secrets confidential.

An employee necessarily becomes familiar with the employer's confidential information and trade secrets, which, if they were given to other persons, might harm the employer's business.

During the employment, if an employee divulges this information to others, he will be in breach of this implied duty. The same does not apply after the employment ends, provided the information was not taken from the employer without consent.

But many employment contracts include express conditions prohibiting an employee from releasing confidential information and this will be binding on an employee after the employment. Confidential information should not be confused, though, with the general experience that an employee acquires

CONCLUSION

The law relating to employment contracts is very complex. In an article this size, it is not possible to cover all the issues. The important thing to remember is that an employment contract is a contract like any other contract.

Before you sign an employment contract, you must be absolutely certain you understand fully what the terms of it are and that you are prepared to accept those terms.

If you do not understand clearly what the contract says, do not sign it until it has been explained to you by an independent lawyer or other person who is familiar with this sort of document. You will not be able to change the terms later unless the other party agrees.

ACKNOWLEDGEMENTS

Lorna Gelbert is a Partner with Madgwicks, Lawyers in Melbourne and is an experienced employment lawyer. She has provided legal advice to the AGCSA and its members for many years.

If you need advice on any employment matters, call the AGCSA office and, if appropriate, you will be given Lorna's contact details. 📞

How Green is Your Golf Course?

Managing Your Business and Human Resources



An example of a typical water recycling system

In light of the recent Warringah Golf Club verdict, ATM revisits the topics of machinery washdown facilities and the disposal of waste water, which should prove handy revision for most.

With the continuance of drought and water restrictions, global warming, environmental degradation and a host of other headline issues related to water use, conservation and quality, public awareness of water issues has soared.

Regulation and enforcement has increased in a commensurate manner to the point where all facilities generating washdown water are now required to have a treatment or recycling system in place and face hefty fines if they fail to do so.

Golf courses invariably face the need to wash turf machinery which generate contaminated waste water requiring treatment prior to discharge to the environment or council sewer.

Where sewer is available golf courses generally are required to discharge waste water to sewer after it has been treated to a level that complies with the council sewer admission standards which form part of the Trade Waste Agreement issued by the council.

If sewer is not available on site then discharge to the environment is governed by the EPA whose admission standards are considerably more stringent than sewer as the water passes directly to the environment without further treatment.

While many golf courses have a designated storage area for pesticides, only a few have dedicated washdown bays and even fewer treat the wastewater generated.

The traditional washdown facility on many golf courses in Australia is at best a concrete washdown pad and pesticide mixing area, with a drain that discharges into a soakage pit, stormwater drain or directly to surface waters.

Allowing contaminated wastewater from washdown bays to drain directly into stormwater or surface waters would be an offence and could lead to fines and/or notices being imposed on operators.

Local councils regulate pollution of waters provisions applicable to golf courses under the POEO Act, unless that council is the golf course operator/owner (in which case the EPA becomes the regulator).

Washdown facilities also have to cope with clippings, oils and other contaminants. Of particular concern is the spillage of pesticide concentrates that could enter local waterways. Such an occurrence is not only environmentally unacceptable, but will also reinforce any community perceptions of golf courses being environmental polluters.

Washdown facilities are recommended to be separate from spray tank filling facilities to

reduce the likelihood of a spill from mixing pesticides or filling or cleaning spray tanks and equipment lines.

If such activities were conducted on the machinery washdown facility loading, it could lead to pesticide contamination of the greater volume of washdown water and render that waste water to be hazardous waste.

Factors to consider when designing such a machinery washdown facility are listed below.

Trade waste may be accepted into the sewerage system if it complies with council's or the water authority's requirements and only under the terms and conditions of a council trade waste permit/agreement.

This permit controls the quality and quantity of trade waste, allowing it to be transported without having any adverse effects on the sewerage system, wastewater purification process, the safety of workers or the environment.

Wherever trade waste is generated, the property owner must apply to council or water authority on a prescribed form for a permit/agreement that allows the discharge of trade waste.

A trade waste permit/agreement will have standard conditions as well as specific requirements for the particular demands of the activity. The agreement is negotiated on a case-by-case basis.

If a trade waste discharge is to be considered, it is important that the waste stream is analysed for the various contaminants that can be in the waste stream. Each council or water authority is responsible for setting its own limits and needs to be consulted locally for requirements.

A general set up of washdown facilities at some courses around Australia are as follows;

- A concrete pad that slopes inwards towards a central pit. The design is such that all washdown water is contained and that no stormwater can enter the facility
- The water enters a pit in which there is a mesh screen to catch grass clippings. An appropriate lifting device (e.g. a gantry lift) is often needed to remove the grass screen as it can become very heavy;
- Water passes through the grass screen and then through a sand/silt trap to trap all soil particles;
- Water is then pumped through a triple interceptor pit to separate the oil/grease from the water;
- The clean water is then discharged to the sewer or other approved location. It may be possible to filter the water through a constructed wetland or to irrigate adjacent turf/garden areas.

In terms of the size of the washdown facility, the minimum area would need to be adequate for taking the largest machine. At golf courses with larger numbers of machines it will be necessary to set up the facility so that multiple machines can be washed at the same time. This is important in ensuring that staff are not waiting unnecessarily until they can access the washdown facility.

Generally speaking there are two types of installations available for golf courses: standard treatment systems and recycling systems which are applicable to golf courses.

STANDARD SYSTEMS (ROOFED AREA)

This would typically employ an oil/water separator system which will treat water captured from workshop and machinery washdown and enable the water to be discharged to sewer or, with modification, to the environment and will meet all council or EPA requirements.

A pump supplied with the system is utilised to draw the water from a holding tank and pump into a coalescing type separator which will remove much of the solids and over 99 per cent of any oil which is ducted to a waste oil drum.

It is simple to install, operate and maintain and requires an in-ground holding tank to be installed for dirty water storage.

The separator discharges directly to sewer by gravity or alternately the water can be pumped for irrigation or dust suppression.

The discharge from this system is not suitable for recycling.

Equipment cost for these systems, excluding site work, holding tank or installation, can be anywhere between \$5000 and \$7000.

RECYCLING SYSTEMS (ROOFED AREA)

Recycling systems treat waste water and produce recycled water that is suitable for reuse for wash down.

Depending on the facility and how much water is lost to evaporation or overspray, the system will recycle approximately 80 per cent of all water used, dramatically cutting water costs and satisfying water restriction rules.

The water is injected with a flocculent to drop oil and solids out and is subsequently filtered and chlorine dosed to ensure that it is pressure washer friendly, odour free and meets OH&S requirements.

The equipment cost for these systems, excluding site work, holding tanks or installation can be anywhere between \$15,000 for a small system through to \$30,000 for a large system. ↴

General considerations for a machinery washdown facility.

- The likely composition and volume of the wastewater;
- Characteristics of the local environment (e.g. natural surface and ground waters, endangered species and their habitats, remnant vegetation, adjacent land uses), that may be at risk from any releases or will receive any current or proposed stormwater or other discharges that have been appropriately treated;
- Legislative requirements including preventing water pollution (POEO Act);
- Installation and maintenance costs;
- Sufficient containment area/holding pit for washdown water;
- Collection and storage facility for washdown water for current or future use;
- Screen and settling pit fitted to trap solids such as soil and grass clippings;
- Interceptor pits to remove grease and oil;
- Facility to treat wastewater to reduce biological oxygen demand;
- Facility to reuse wastewater on site for irrigating turf;
- Water quality that meets requirements for approval of local sewage service provider for disposal of treated wastewater to sewer.

Buying Second-Hand Machinery - Do The Homework

Managing Your Business and Human Resources



Victorian Turf Equipment Technicians' Association vice president Mark Browne looks at the burgeoning second-hand machinery market and provides a useful checklist that mechanics and superintendents should consider when buying used equipment for their golf course.

When considering the purchase of second-hand machinery for golf courses, a number of factors must be looked at and put into the equation when weighing up whether to buy used or buy new.

Of course, the purchase price of a second-hand machine can be considerably less than buying new. This would be a main factor to some clubs, and more so for smaller clubs and country clubs on tighter budgets where the purchase of a new machine could be out of the question.

Price alone, of course, is not the only consideration when buying second-hand and many other factors come into play that must be taken into account.

With an emerging second-hand market and turf equipment magazines such as The Groundsman advertising an array of turf equipment, the second-hand market is large, which augurs well for those superintendents and turf managers intending on buying second-hand.

By browsing through these types of publications buyers can get a good idea about the market value of a particular model of machine they require.

In my experience at the Eastern Golf Club in Melbourne, most of our main equipment is purchased new, such as fairway mowers, greens mowers, outer surrounds mowers, commercial deck rotary mowers and turf trucksters.

We also have the ability to have a machinery replacement programme whereby equipment is purchased when it has reached a certain age. This is fitted into the overall budget of machinery and doesn't come unexpected when \$90-100,000 has to be provided for a new fairway mower.

The purchase of second-hand machinery for probably most of the metropolitan and country clubs comes into importance when buying equipment that would be used on a seasonal basis and as such tends to last many more years.

Therefore items such as topdressers, sod cutters, walk-behind cylinder mowers and scarifiers, tractors, vertidrains and aerators could be considered as items to look for second-hand.

Of course there are many more things to look out for when buying second-hand.

We must remember that we are purchasing something that may have done anything from 500-5000 hours work and the risks of blowing the budget on a machine that at first looked a good buy on price could make the machine not worth purchasing, as the cost involved on ancillary repairs and parts could make the purchase not viable.

Warranties are considerably less on used machinery as where a new machine would come with a 12 month to maybe two year warranty, used machinery may only come with a three month warranty.

The golf course turf mechanic and course superintendent should liaise with each other and inspect the item of machinery being considered, as two heads generally are better than one when looking over a piece of second-hand machinery.

Whereas the mechanic may look at the condition of the engine and hydraulics as a major factor, the superintendent may consider the type of cutting unit to be of more importance.

Below is a checklist of some points that are important to consider when purchasing second-hand equipment.

Another worthwhile point would be to speak to the mechanic and superintendent where the machine originally came from. Most reputable dealers should have no hesitation in giving that information to a potential purchaser.

Dealers usually have the first choice of second-hand machinery when a buyer trades up and therefore have the first call on whether a trade-in is worthwhile to put on their second hand lot. The main manufacturers and their dealers are a very useful source for finding good second-hand machines.

As with the purchase of a new car, large dollar savings can be made on machines that have been used for demonstrations at trade fairs etc. and would still normally come with a full manufacturer's warranty and with only small hours on the clock. Some dealers also offer free delivery to capital cities in Australia for their second-hand machines.

All of the well-known turf equipment manufacturers such as Jacobsen, John Deere and Toro make very good equipment and debate arises on the issues of ease of serviceability, operator comfort, spare parts availability, cutting units and overall quality of

cut. Most of the larger dealers also offer finance and leasing deals on their equipment.

So in summary, when looking for used equipment, as in most purchases, the buyer needs to do their homework in regards to studying the second-hand market.

Looking through magazines and newspapers, we can find an array of second hand machinery. The Victorian Turf Equipment Technicians' Association magazine also offers members and their golf courses the ability to advertise second hand machinery and these can be a good source too.

And don't forget word of mouth through technicians' meetings and golf course superintendents' meetings as you never know what might be hidden in the old shed behind the ninth green at someone's golf club.

ACKNOWLEDGEMENTS

Mark Browne is mechanic at the Eastern Golf Club in Doncaster, Victoria and is vice president of the Victorian Turf Equipment Technicians' Association 🏌️



SECOND-HAND CHECKLIST

- Look at the overall visual appearance of the machine (eg: dents, scratches on the bodywork, tyres, seat, cutting units);
- How many hours has the machine done, and does it look in good condition for the amount of hours it has done?
- Look at service records. Has the engine oil and filters been changed regularly and hydraulic oil and filters been serviced regularly?
- Has it been greased regularly?
- Is there any freeplay in the steering and steering ram and bushes?
- Are the drive belts for hydrastat and fan belts in good condition?
- Are there any oil leaks from engine, hydraulic lift rams or hydraulic hoses or hydrastatic transmission?
- Is the engine cooling system in good order? Are there any coolant leaks?
Are the coolant and radiator hoses in good order? Has the cooling system been serviced regularly?
- Start the engine. Does it blow smoke when started or when it is operating?
- Do the safety interlock systems work (i.e. does the engine cut out when you get out of the seat)?
- Does the park brake work?
- Is there excessive freeplay in lift arms for cutting units indicating worn bushes and yokes?
- Does the workshop and owner's manual and operator's safety manual come with the machine?
- Are the cutting units in good working order (eg. bedknives, reels, reel bearings freeplay, rollers and roller bearings)?

Testing Time

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BRON BLANCH



With summer coming to an end, Bron Blanch from Sportsturf Medics - the medical service provider for the AGCSA – provides superintendents with a timely reminder on the requirements of monitoring staff members for exposure to pesticides.

Despite the high level of OHS requirements pertaining to the application of insecticides, it is just as crucial for superintendents to be aware of their responsibilities when it comes to having members of their staff monitored for exposure to such chemicals.

Inappropriate exposure to organophosphate insecticides can interfere with the normal function of the nervous system. They do this by blocking cholinesterase enzyme activity, which are the reason organophosphate insecticides are called anti-cholinesterase compounds.

Absorption

Most poisonings from pesticides result from skin absorption. The greatest numbers of these happen during summer when arms and legs are often exposed.

Symptoms

Symptoms of acute toxicity to pesticides include salivation, sweating, lacrimation, increased bronchial secretions, constricted pupils, chest tightness, abdominal cramps, nausea, diarrhoea, loss of bladder control, weakness, fatigue and involuntary twitching.

Long Term Health Effects

Tingling and a burning sensation in the hands and feet followed by weakness in the lower limbs and impaired ability to coordinate movement. No pesticides are currently listed in the NSW carcinogenic Substances Regulations.

Precautions

The minimum recommended personal protection from organophosphate pesticides is a boiler suit buttoned at wrist and throat, impervious hat and gloves, washable hat, eye protection and a breathing filter.

Street clothing should not be worn under the boiler suit and following spraying, the equipment should be quarantined then washed separately.

Monitoring

Biological monitoring is done by measuring the depression of cholinesterase from exposure to organophosphorous pesticides or carbamate insecticides.

Medical testing should be carried out to establish baseline levels for each relevant employee. It is recommended by WorkCover that once a baseline is established, monitoring should be carried out at least twice a season, at the end of a working day that has included spraying.

Workers who may be exposed to chemical hazards should be monitored in a systematic program of medical surveillance that is supervised by a WorkCover Authorised Medical Practitioner.

The law pertaining to this is very explicit and Clause 165, Chapter 6, Part 6.4 of the Hazardous Substances, 2001 regulation reads as follows.

1) *An employer must provide health surveillance for each employee who is exposed to a hazardous substance if there is a risk to the health of the employee as a result of that exposure, and:*

a) *the hazardous substance is referred to in column 1 of the table to this clause, or*
b) *The exposure to any other hazardous substance is such that:*

i. *An identifiable disease or other effect on health may be related to the exposure, and*
ii. *There is a reasonable likelihood that the disease or other effect on health may occur under the particular conditions of work, and*
iii. *There is available an effective technique for detecting indications of the disease or other effect on health.*

An employer is not required to provide health surveillance within the period of 12 months after commencement of this clause in case of exposure of an employee to benzene, chromium, creosote or pentachlorophenol.

2) *An employer must provide biological monitoring for an employee if there is a reasonable likelihood that the employee could be exposed to levels of a hazardous substance that could be a risk to health and an effective procedure for the biological monitoring of those levels is available.*

3) *The employer must ensure that:*

a) *The health surveillance is performed under the supervision of an authorised medical practitioner, and*

b) *If there is a significant risk to the health of an employee from a hazardous substance referred to in the table to this clause.*

4) *The selection of an authorised medical practitioner to supervise the surveillance must be undertaken by the employer after consultation with the relevant employees.*

5) *The health surveillance must be undertaken at the expense of the employer.*
Maximum penalty. Level 4."

Table 1. Hazardous substances

Acrylonitrile
Arsenic
Asbestos
Benzene
Cadmium
Chromium
Creosote
Crystalline Silica
Isocyanates
Lead
Mercury
MOCCA
Organophosphate Pesticides
Pentachlorophenol (PCP)
Polycyclic Aromatic Hydrocarbons
Thallium
Vinyl Chloride

The AGCSA's Sportsturf Protection Manual contains all the information superintendents need to know on the proper ways to handle and apply pesticides safely. The manual can be purchased from the AGCSA for \$220.