Environmental Analysis Laboratory









Agricultural testing

EAL – Southern Cross University's Environmental Analysis Laboratory – provides a wide range of chemical and physical analysis of soil and plant material for agricultural management. All analysis is backed by rigorous quality control procedures with testing carried out under ASPAC accreditation. A full range of testing suites are available with the option for individually customised analysis packs. EAL offers exceptional customer service with efficient and prompt analysis times (listed in the table over page).

Soil testing

EAL developed an Australian version of the Albrecht/Reams soil test (RA-PACK-01) in 1998, which is suitable for Australian soil types. It has been refined to include:

- standard Australian testing for exchangeable cations (Ca, Mg, K, Na, H, Al)
- plant available micronutrients (Fe, Cu, Zn, Mn, B, Si)
- phosphorus tests (Bray 1, Bray 2, Colwell)
- nutrients (nitrate, ammonium, sulfur)
- 'Reams' dilute Morgan extract for determining soluble nutrients (Ca, Mg, K, P)
- pH, electrical conductivity, basic colour, basic texture, total LECO carbon and total LECO nitrogen.

An extended suite of tests is also available (RA-PACK-02) to give additional information on nutrients adsorbed to soil particles and organic matter. To obtain this information, not available through traditional testing, the following is undertaken:

- RA-PACK-01 tests
- 'pseudo-totals' extracted with concentrated acids (Ca, Mg, K, Na, S, Fe, Cu, Zn, Mn, B, Al, Si, P, Co, Mo and Se).

Soil analysis reports are provided with desirable levels, based on soil texture, to assist soil management. EAL can also arrange for an independent soil fertility report to be commissioned at the client's request.

A large range of additional soil tests are described in the 'Full Analytical Services Price List' on the EAL website: scu.edu.au/eal

Popular additional tests include:

- labile carbon (SS-SING-018)
- Phosphorous Buffer Index (SS-SING-037)
- chloride (SS-SING-038)
- pH CaCl₂ (SS-SING-066)
- phosphorous Olsen (SS-SING-034).

Plant testing

EAL provides comprehensive chemical analysis of plant tissue (leaf, fruit, roots, bark, sap, etc.) Washing is available to remove foliar sprays and liquid fertilisers (SS-PREP-09). Popular testing suites include:

- total acid extractable macro and micronutrients (P, K, Ca, Mg, K, Na, Fe, Cu, Zn, Mn, B, Si, Co, and Mo) with total C, N and S testing (PA-PACK-01)
- · nitrate and ammonium levels (PA-PACK-005).

Contact EAL:

T: 02 6620 3678

E: eal@scu.edu.au

W: scu.edu.au/eal







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Samples arrive	Plant results supplied	Soil results supplied
Monday – Tuesday	Thursday (2-3 working days)	Friday (3-4 working days)
Wednesday – Friday	Following Tuesday (2-4 working days)	Following Wednesday (3-5 working days)



