



**BIONIX C4 NATURAL HERBICIDE**  
**A FAST-WORKING PLANT-BASED HERBICIDE**  
APVMA  
**Reg: 93067/137873**  
**Active ingredient 400g/L ammonium nonanoate**

**Bionix C4 is a natural-plant-based non-selective herbicide to control weeds fast.**

- **Registered by the APVMA February 2024**
- **Does not translocate**
- **PH neutral – noncorrosive unlike other products**
- **Easy on equipment**
- **Will not migrate through the soil**
- **Burn down in 24 hours**
- **Lower active loadings**

**It is an alternative treatment to kill weeds that have growing resistance to glyphosate and paraquat.**

**May be used as a harvest defoliant when crops such as pumpkins, potatoes, root vegetables and cottons require green crop leaves, weeds and grasses eliminated**  
**Ideal for precision technology**



“Bionix C4 has the potential to be a replacement for traditional herbicides. Coupled with precision application technology, Bionix C4 can drastically change the way by which farmers manage their weed populations”

**Tim Wolens**

Queensland fruit & Vegetable Growers  
SEQ Water Quality Project Manager GROWCOM



**BIONIX C4 Herbicide is a natural contact herbicide containing ammonium nonanoate. It penetrates the cell walls of plants, causing it to quickly dehydrate and collapse. To be effective, BIONIX C4 must meet the green parts of the plant. BIONIX C4 will control many weed species and is nonselective.**

**For non-selective control of seedling and young broadleaf and grass weeds, for suppression of established weeds and perennial species as specified in the Directions for Use**

#### **MIXING**

**Half fill spray tank and commence agitation. Slowly add required amount of BIONIX C4. Top up with required quantity of water. Agitate well before commencing spray procedure. Do not mix more than is needed.**

#### **APPLICATION**

**Ensure that all weed foliage is totally covered with spray as BIONIX C4 is a contact spray only. Partial coverage will give only partial control.**

**Apply by ground equipment only using for example boom or spot sprayers. Apply using a coarse droplet spray. Optimum application volumes are related to weed maturity and density. Contact with the weeds is essential for control, as such apply in sufficient water to ensure complete and thorough coverage of foliage.**

**DO NOT spray porous surfaces without prior testing. May cause discolouration on porous hard surfaces.**

#### **PRECAUTIONS**

**Wear eye protection when mixing or using.**

#### **Re-Entry Period**

**DO NOT enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.**

#### **Bionix C4 is:**

- » **All natural – a unique soap salt formula derived from plants**
- » **Fast acting – visible results in an hour, burndown in 24 hours**
- » **Miscible in water – no dissolving required, more effective spraying**
- » **pH neutral – non-acidic, other bioherbicides can be corrosive (damaging equipment)**
- » **Kills numerous glyphosate-resistant weeds (not all resistant weeds have been tested!)**
- » **Crop safe – independent efficacy consultant suggests suitability as a defoliant**
- » **Animal safe – not harmful to wild and domestic animals and insects**

- » **Kid safe – safe in the field, and does not enter the food chain**
- » **Microbe safe – breaks down quickly and doesn't impact soil health**
- » **Non-migratory – will not spread through the soil**
- » **Low spray drift – sprayed as heavy droplets, limiting the potential for spray drift**
- » **Limited PPE required when applied as directed**

### **Resistant Fleabane 791 Vineyard Mudgee**



**Trial to look at effectiveness of NONTOX C4 Herbicide on Fleabane Methodology**

**Application date: 26/09/2024**

**Label rate of 7 litres per 100 litres of water. Rate used 7 litres per 100 litres of water**

**Area covered approximately 300 metres**

**Applied by spot spray using course nozzle ensuring full coverage**

**Result reviewed at 24 hours after application and fleabane was eliminated**

**Good coverage is critical to achieve these results**



**The period of burn off is superior to other options such as paraquat. Fleabane in this trial did not grow out as can be the case with other options. The Fleabane collapses stopping all photosynthesis capacity of the plant**

#### **Pinata Pineapple Farm SEQ billygoat weed infestation**



**After one application of Bionix C4 3 weeks later and following heavy rain**



**This trial study was conducted at Piñata Pineapple plantations at Warmuran, Queensland to examine the potential of Bionix C4 (400 g/L Ammonium Nonanoate for use as a herbicide in pineapple production systems. Results of this study would conclude that Bionix C4 demonstrates a high level of crop safety. Herbicide efficacy was good on a very advanced weed population and improvement could be made with application technique. Follow up rainfall at 34 days appeared to further improve efficacy and more study is required to understand the mechanisms behind this result**

## Sunshine Coast Council Trial in High Pedestrian areas



Test candidate formulations consisted of Bionix C4 at 40, 55, 70, 85 & 100 ml/L and were compared to the commercial reference products of Round Up Biactive (360 g/L glyphosate) at 7 mL/L, Slasher (525 g/L nonanoic acid) at 70 ml/L. Treatments were applied with a 2 meter small plot precision spray boom in a randomized complete block trial design with four replicates at a water rate of 980 L/ha with two applications on a 14 day window.

Results of the study would indicate that Bionix C4 provided an equivalent level of control to Round Up Biactive and Slasher on most weed species but Enviroweeder was superior for Fleabane and Nutgrass control at selected intervals. Bionix C4 offers an alternate mode of action group on difficult and or herbicide resistant/sensitive weed species

### NOTE:

On 30 July 2024 the Australian Regulator, APVMA, announced severe restrictions proposed for use of Paraquat and Diquat. These two chemicals are essential to the efficacy of glyphosate in single, double and triple knocks. There have been no new modes of action invented in the last 20 years and at present there are no synthetic chemicals that can kill several invasive resistant weeds.

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