

SeMNPV-BV001

Technical Data Sheet

BuggiPro CO., Ltd.
Revision: 2026.01

1. Product Identification



Product Name	SeMNPV-BV001
Common Name	SeMNPV
Formulation	WG (Water Dispersible Granule)
Target Pest	Beet Armyworm (<i>S. exigua</i>)
Common Crops	Green Onion, Leafy Vegetables, Tomato, Cruciferous Vegetables, Soybean

Figure 1: SeMNPV-BV001 Product Appearance

2. Composition / Information on Ingredients

Active Ingredient	Spodoptera exigua Nucleopolyhedrovirus
Concentration	1.0×10^9 OBs/g (Guaranteed)
Strain Identity	BV001 (99.5% genetic similarity to AF169823.1)
Carrier	Food-grade starch & lignin-based dispersants

3. Physical & Chemical Properties

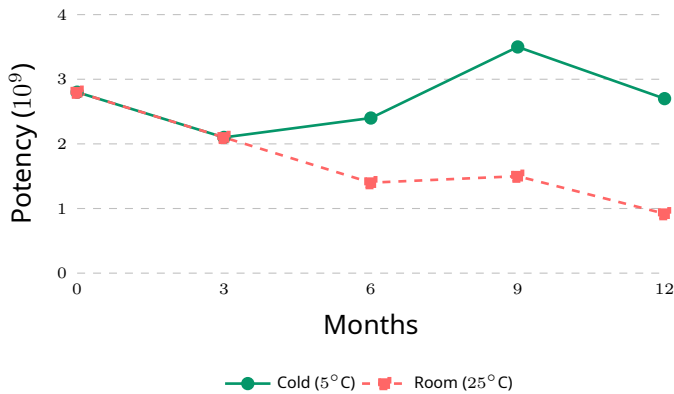
General Properties

Appearance	Brown granules
Odor	Mild, characteristic
pH (1% soln)	6.56 ± 0.04

Performance Specs

Suspensibility	91.12% (Std \geq 85%)
Wet Sieve	0% (Std \leq 2%)
Foaming	0 mL (Non-foaming)

4. Stability & Storage



Storage Recommendations:

Cold Storage (5°C): Recommended. Potency remains robust (2.7×10^9) after 12 months.

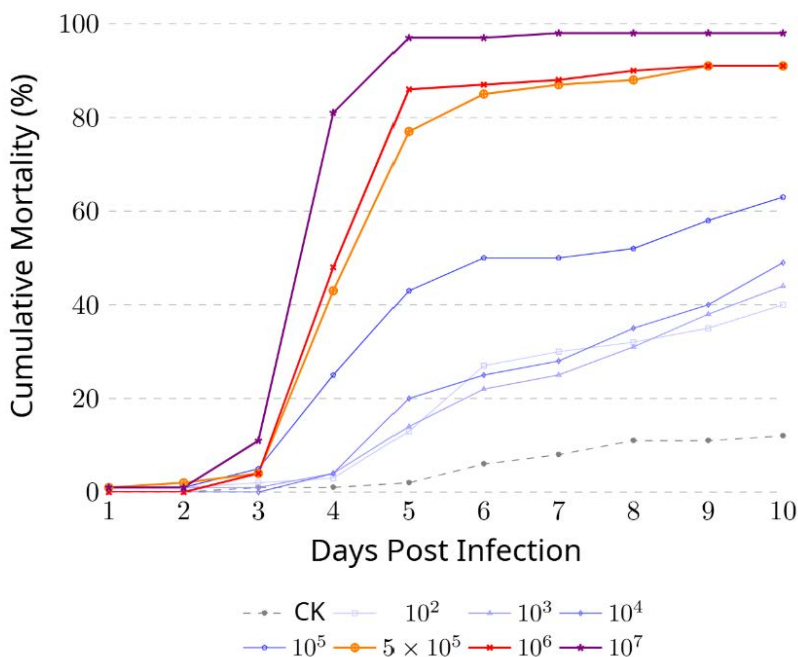
Room Temp (25°C): Stable. Potency (0.92×10^9) remains close to standard after 12 months.

Figure 2: Potency of SeMNPV-BV001 over 12 months storage.

5. Mode of Action

- Ingestion:** Larvae consume plant material treated with SeMNPV-BV001.
- Activation:** High pH (10-11) in the insect gut dissolves the protein coat.
- Infection:** Virions invade gut cells and spread systemically.
- Secondary Transmission:** Infected larvae liquefy, releasing millions of new viral particles.

6. Biological Efficacy



Virulence Analysis:

1. Fast Action: Mortality begins 3 days post-infection, with mass mortality occurring between days 4 and 7.

2. High Efficacy: At viral concentrations $\geq 5 \times 10^5$ OBs/mL, the mortality rate exceeds 90%.

Figure 3: Cumulative mortality of *S. exigua* larvae (Indoor Bioassay).

7. Field Trial Results

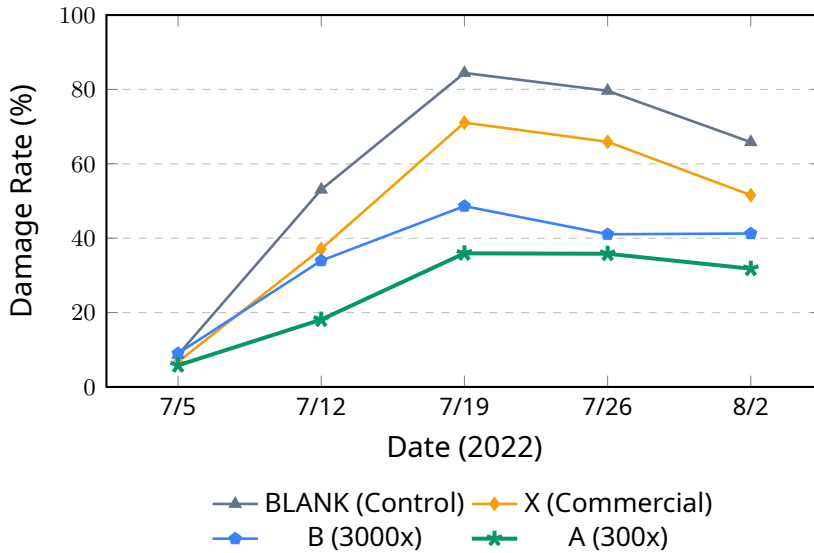


Figure 4: Field efficacy comparison: Damage Rate over Time.

Trial Overview:

Comparison of SeMNPV-BV001 (A: 300x, B: 3000x) vs. Commercial Product X and Control (BLANK).

Key Results:

- **1. Superior Efficacy:** Both virus groups (A & B) demonstrated excellent control, maintaining significantly lower damage rates compared to both the untreated control (BLANK) and the commercial product (X).
- **2. Optimal Specification:** While the 300x dilution (Group A) showed the highest efficacy, the **3000x dilution (Group B)** offers the best economic value without compromising control, making it the recommended standard for field application.

BuggiPro CO., Ltd.

No. 36, Yuansi 2nd Rd., Changzhi Township, Pingtung County, Taiwan
Contact: buggipro@gmail.com