

BUGFLOW

It gets them where they need to be



Instruction Manual



BIOBEE
Inspired by Nature

Warning:

For your personal safety, **read & understand** before using.
Save these instructions for future reference.

BUGFLOΣ



Thank you for choosing BUGFLOΣ for your biological pest control application needs. This device has been specifically developed and designed by experienced IPM professionals. Bugflow is an innovative blower attachment for the uniform release and application of beneficial insects and mites in both greenhouse and field-grown crops.

ADVANTAGES

1. Consistent & uniform application of beneficial insects and mites and their feed on the crop for a distance of up to 4 m (13 feet)
2. Easily adjustable flow rate
3. Good maneuverability in tight spaces
4. High survival rate of beneficial mites during application
5. Saves time and labor in comparison to manual application

SAFETY AND PROTECTION

1. Always use eye and ear protection.
2. Use a dust mask specially designed to filter out microscopic particles.
3. Work in a well ventilated area.
4. Hold the device only from the designated areas.
5. Batteries must be disconnected when BUGFLOΣ is not attached to the blower or in use.
6. Follow the Blower and battery manufacturer's instructions.
7. Use the device only for its intended purpose.

COMPONENTS

- | | |
|--------------------------|--------------------------------|
| 1. BUGFLOΣ main body | 6. Funnel |
| 2. Funnel joint | 7. Rotor |
| 3. Application rate dial | 8. Carry strap attachment loop |
| 4. Nozzle attachment | Carry strap included |
| 5. Battery housing | |

The Makita blower models suitable for use: DUB 182/185, BU01Z & XBU05Z
Requires a 10.8 volt battery/model BL1013

BLOWER & BATTERIES NOT INCLUDED



ASSEMBLY

- Align the two nozzle protrusions (4) with the corresponding grooves in the blower and turn to lock place.
- Align the protrusions of the funnel joint (6) with the aperture of the nozzle (2) and push to click in place.
- Slide the battery cartridge (not included) in the battery house (5) until it locks in place with a click.
- Adjust the application rate dial (3) to the desired rotor speed.

COMPONENTS





IMPLEMENTATION GUIDELINES

1. Once assembled, run the blower while the funnel is empty to ensure the rotor is spinning and the air is flowing properly through the barrel.
2. Adjust the settings on the settings dial.
3. Place the materials to be released in the funnel (a maximum of 3 liters).
4. Point the BUGFLOΣ towards the area to be sprayed.
5. Walk at a constant speed while holding the blower at the right angle to best cover the crop and ensure a uniform spread of the material on the crop.
6. Use the shoulder carry strap to reduce fatigue during application.

Important

The rotor will start and stop automatically with the air from the blower!

When air flows the rotor rotates, when the air flow stops, the rotor stops.

Ensure no foreign objects enter the funnel. Small contaminants (e.g. pebbles) can block the rotor from spinning.

WARNING

DO NOT PUT FINGERS IN ROTOR IT MAY CAUSE SERIOUS INJURY

APPLICATION RATE DIAL SETTINGS FOR ROTOR SPEED





RATE APPLICATION SETTING GUIDELINES

For BioPersi+, BioSwirskii and BioCalifornicus

1. Identify product concentration (per 1 liter cylinder or 2 x 500ml bottles) and carrier material.
2. Select BugFlow dial setting based on the # of predatory mites to be applied (sq. m) and desired spacing between each application pass (max 4 m) (TABLES 1 and 2) *.
3. The area treated (sq. m) can be estimated based on the dial setting selected (TABLE 3) *.

*Calculations in tables assume a walking speed of 1.3 m/sec (3 mph)

TABLE 1. Number of predatory mites applied per square meter at 2-meter spacing

DIAL	25K/liter			50K/liter		
	Sawdust	Vermiculite	Bran	Sawdust	Vermiculite	Bran
1	10	10	11	20	20	22
2	18	21	22	36	42	45
3	34	32	32	68	65	64
4	52	41	37	105	82	73
5	66	57	43	131	114	86
6	70	65	49	139	131	98

TABLE 2. Number of predatory mites applied per square meter at 4-meter spacing

DIAL	25K/liter			50K/liter		
	Sawdust	Vermiculite	Bran	Sawdust	Vermiculite	Bran
1	5	5	5	10	10	11
2	9	10	11	18	21	22
3	17	16	16	34	32	32
4	26	20	18	52	41	37
5	33	28	21	66	57	43
6	35	33	24	70	65	49

TABLE 3. Approximate area treated (square meters) per 1-liter cylinder

DIAL	2-meter spacing			4-meter spacing		
	Sawdust	Vermiculite	Bran	Sawdust	Vermiculite	Bran
1	2531	2460	2308	5062	4920	4616
2	1386	1193	1118	2772	2386	2236
3	732	773	780	1463	1547	1560
4	477	611	683	954	1221	1366
5	380	440	584	761	880	1168
6	360	382	512	719	764	1024

DISCLAIMER

Walking speed, row spacing, wind, blower operation and other external factors will influence BugFlow application. The final calibration adjustments should be made based on user experience. If in doubt of the correct BUGFLOΣ rate setting for your beneficials, please consult your local BioBee representative.



STORAGE & MAINTENANCE

Always make sure that the tool is switched off before attempting to perform inspection or maintenance.

The tool, rotor and its components must be kept clean, clean them using air pressure. Store BUGFLOΣ and accessories in a dry, dust-free area, protected from direct sunlight.

SERVICE & WARRANTY

The 12 month warranty is valid from the purchase date and will be provided with proof of the original purchase invoice.

The warranty will not apply in the following cases:

1. Failure to follow the instructions (operation, storage and maintenance).
2. Breakage or penetration of a hard foreign object.
3. If changes were made to the device other than by the BioBee laboratory.

Repair and adjustment services will be performed by the BioBee company from which the product was purchased. The customer will be responsible for transferring the device to the seller.

BioBee is not liable for any direct or indirect damage to the BUGFLOΣ caused by the use of biological materials other than those supplied by BioBee.



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