



A

Large straight-tube
30-inch fan covers the entire strawberry bed with powerful suction

B

Raised baffle system
High-porosity perforated plate six-inches above the vacuum outlet improves efficiency while matching efficacy of existing baffles

C

Circular ducting
Tubular design improves airflow efficiency which leads to increased *Lygus* spp. removal

Equipment operation

- ❖ 2500 PSI pump pressure
- ❖ 70 horsepower tractor
- ❖ 500 RPM @ PTO
- ❖ 2 mile/hour travel speed

The CP30 Bug Vacuum has been designed to increase rates of *Lygus* spp. removal in California strawberry fields in comparison to conventional vacuums. It has been evaluated with the components and operating parameters listed above. Users should consult with the California Strawberry Commission's Automation Team if alternative components are to be used.



Proportion of <i>Lygus</i> spp. population removed (% +/- SEM)		
Bug Vacuum	9/25/20	9/30/20
Grower Standard	15% (+/- 4.5)	19% (+/- 4.2)
Single Barrel	55% (+/- 8.5)	47% (+/- 5.7)

*CP30 removed significantly more *Lygus* spp. per pass (N=4) than a conventional vacuum (p<.001)

Evaluated components

- ❖ Fan – Multi-wing 30/9-9/41.5/PAG/EMAX4
- ❖ Motor – Danfoss SNM2 19cc
- ❖ Pump – Eaton 420 series ADU062L
- ❖ Gearbox – AuburnGear Model 5 PTO Drive



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