

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

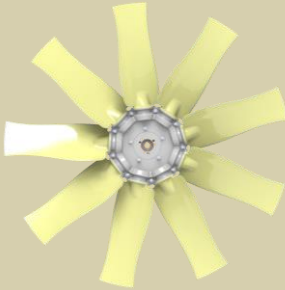


Proportion of <i>Lygus</i> spp. population removed (% +/- SEM)		
Bug Vacuum	9/25/20	9/30/20
Grower Standard	15% (+/- 4.5)	19% (+/- 4.2)
Single Barrel	55% (+/- 8.5)	47% (+/-5.7)

*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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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.