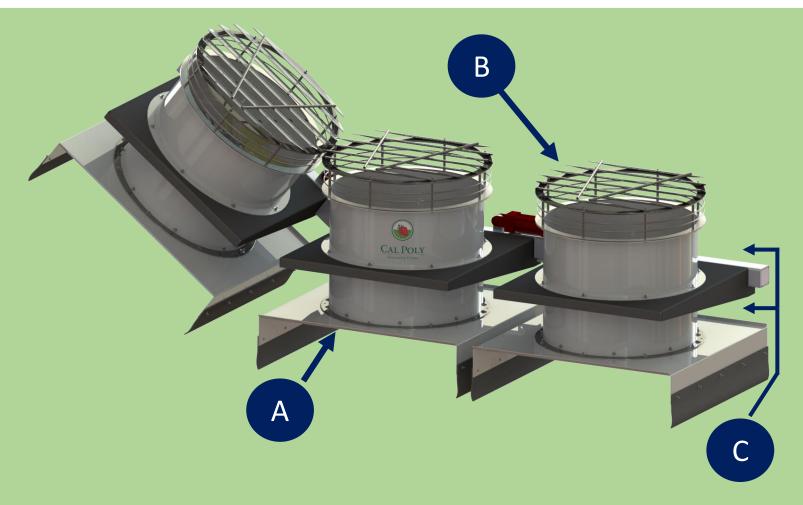
## Single Barrel Bug Vacuum 2020







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



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



**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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