

Measuring Effectiveness of Augmentation at a European Agricultural Site

SITUATION

Bad Form

Working in a lettuce field can be extremely strenuous as it requires constant bending over to tend to lettuce. Most common injuries were to the lower back.

GoX Labs tested the difference of total lifts, good lifts, bad lifts, V02, and steps of three lettuce field workers using a Leavo back support exoskeletons vs no back support exoskeletons.

RESULTS

Productivity Increased While V02 Decreased

The results were significant and sustained. Exoskeleton reduced metabolic cost, enhanced lifting form, and increased productivity.

Our client realized:

- V02 per lift with support was -25%
- Total number of lifts with support was +60%
- Ratio of good lifts with support was +85%
- Total number of steps was +70%

INTERDICTION

Improve Form

Back support exoskeletons help keep the worker in the correct posture while working and helps take the extra work off the worker's body.

GoX Labs Boost:

- Samsung Galaxy watch measuring over 20 form, force, fatigue, fitness, performance and environmental factors
- GoX Labs motion pod measuring 3D movement of selected body part such as trunk or arm
- Dashboard providing real-time status risks by groups and workers

