Figure 1:

A. Spring-actuated Model

B. Muscle Energy Density: 15.0 J/kg
   Available Energy From Spring: 4.2 J/kg

C. Muscle Energy Density: 15.0 J/kg
   Available Energy From Spring: 4.2 J/kg

D. Muscle-actuated Model

E. Muscle Energy Density: 15.0 J/kg
   Available Energy From Muscle with FV losses: 11.25 J/kg

F. Muscle Energy Density: 15.0 J/kg
   Available Energy From Muscle with FV losses: 3.6 J/kg

G. Effective Jump Height (m)

- Spring improves jump height
- Muscle improves jump height

Not achievable

1. Spring-actuated jumpers
2. Muscle-actuated jumpers
3. Muscle-actuated or spring-actuated jumpers

Kinetic Energy Density (J/kg)