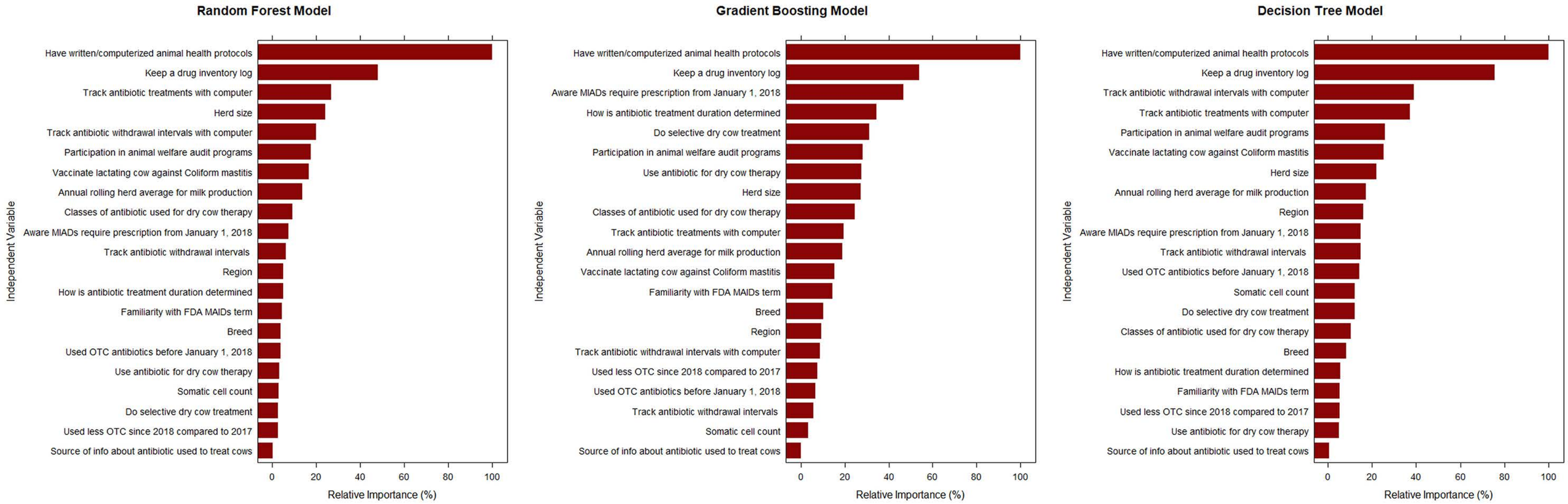
Random Forest Model
Have written/computerized animal health protocols
Keep a drug inventory log
Track antibiotic treatments with computer
Herd size
Track antibiotic withdrawal intervals with computer
Participation in animal welfare audit programs
Vaccinate lactating cow against Coliform mastitis
Annual rolling herd average for milk production
Classes of antibiotic used for dry cow therapy
Aware MIADs require prescription from January 1, 2018
Track antibiotic withdrawal intervals
Region
How is antibiotic treatment duration determined
Familiarity with FDA MAIDs term
Breed
Used OTC antibiotics before January 1, 2018
Use antibiotic for dry cow therapy
Somatic cell count
Do selective dry cow treatment
Used less OTC since 2018 compared to 2017
Source of info about antibiotic used to treat cows
Independent Variable
0
20
40
60
80
100
Relative Importance (%)
Gradient Boosting Model
Have written/computerized animal health protocols
Keep a drug inventory log
Aware MIADs require prescription from January 1, 2018
How is antibiotic treatment duration determined
Do selective dry cow treatment
Participation in animal welfare audit programs
Use antibiotic for dry cow therapy
Herd size
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Source of info about antibiotic used to treat cows
Independent Variable
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20
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60
80
100
Relative Importance (%)
Decision Tree Model
Have written/computerized animal health protocols
Keep a drug inventory log
Track antibiotic withdrawal intervals with computer
Track antibiotic treatments with computer
Participation in animal welfare audit programs
Vaccinate lactating cow against Coliform mastitis
Herd size
Annual rolling herd average for milk production
Region
Aware MIADs require prescription from January 1, 2018
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