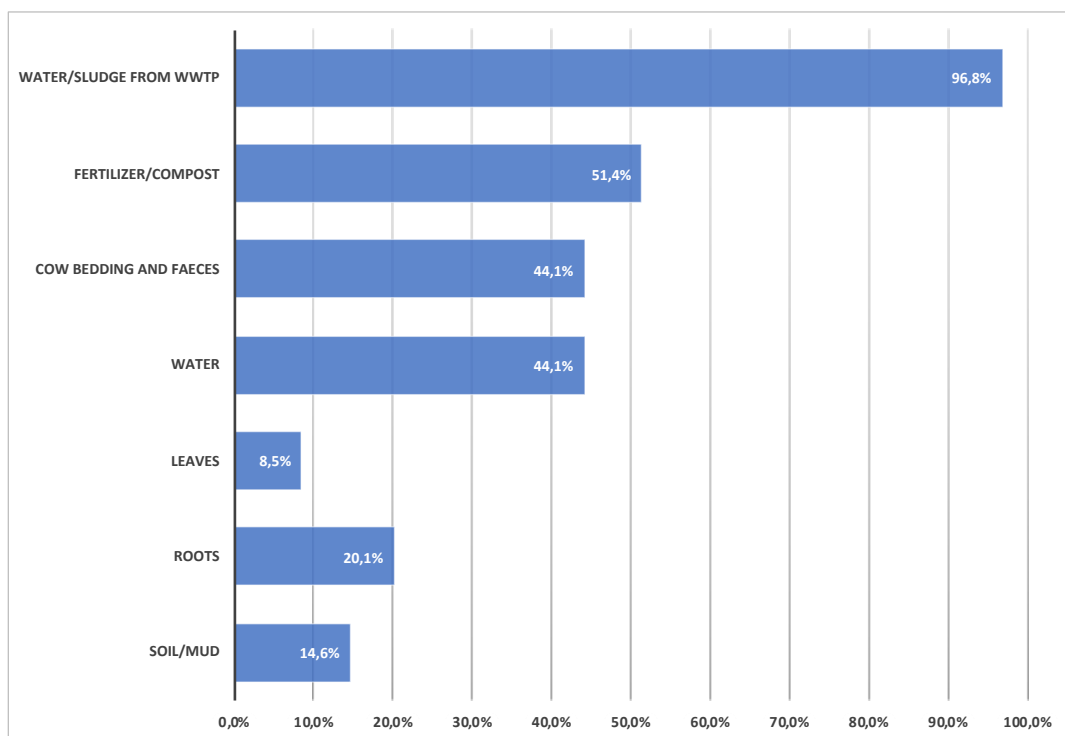


## MedVetKlebs deliverable D-JRP11-2.3

January 2021 (month 36)

### Sampling:

To analyze the transmission and ecology of Kp in a local “One Health” context, we have focused on a restricted geographic setting, Burgundy in France. For this purpose, we collected 664 environmental samples in a single French administrative locality (Department of Côte d’Or, Burgundy, France) from July 2018 to July 2019. Most samples were collected monthly in a market gardener farm (n = 329) and in an organic cattle farming (n = 304) and consisted in soil/mud (n = 219), roots (n = 189), leaves (n = 106), water (n = 34), cow bedding and faeces (n = 50) and fertilizer/compost (n = 35). In addition, water and sludge were sampled in 31 wastewater treatment plants (WWTP) in the same department (n = 31). For comparison purposes, 47 clinical isolates collected in 2018 and 2019 by the Department of Bacteriology from the University Hospital of Dijon (the capital city of Côte d’Or), France, were included. Environmental samples screening with ZKIR qPCR assay followed by culture on SCAI media allowed the isolation of Kp strains in 24.7 % (164/664) of the environmental samples. The prevalence of Kp across the different sources is presented in **Figure 1**. Phylogenetic and genomic analysis are ongoing to evaluate the diversity of Kp in these environmental niches across one year, and to compare them with sewage and clinical isolates in terms of strain subtype, virulence factors and antimicrobial genes.



**Figure 1.** Prevalence of Kp-positive samples among the 695 samples collected in a single French administrative locality (2018 - 2019)