PP-310 [Beekeeping Technology and Quality]

Developing a simple fire- resistant brood and super beehive for fire prone areas using used oil drum and ceramic cloth/ fiber glass mat

Akwasi Apraku, Collins Mintah Benyin
research,ghanabeekeepers association

Background/PURPOSE:
The dry transitional belts of Africa are very suitable for beekeeping as it has the long dry periods and flora beekeeping industry to thrive however wildfire threats are a menace for the industry

Problem Description
Developing low-cost fire-resistant beehives for fire prone area is very costly and beyond the reach of the farmers in those area hence they are not able to take advantage of their environment to developing a decent living from nature given bee products due to the incidence of wildfire which is very intense during the dry periods
There is the need to develop a low-the but effective beehives for such environment

OBJECTIVES: To develop a fire resistant low -tech efficient brood and super beehive from used oil drum and ceramic cloth/ fiber glass mat
Methodology
Materials
Ceramic cloth/fiber glass mat
Used oil drum with lid
5cm angle iron

METHODS: The oil drum is equally cut through its mid portion horizontally and each half further cut through vertically to have four equal parts. The angle is wielded to the edges of the cut line such the quarter of the drum becomes the brood and other the super. However, two lids are needed to be cut through equally to cover the open ends of the now two set of beehives. Angle iron are internally placed in each quarter as top bar rest whilst the outside angle iron is drilled to bolt the brood and super hives in place. A queen excluder is placed between the brood and the super. The top bars in the super slides through two angle iron which acts a rail Double layer sacks of the ceramic cloths or the fiber glass mats are sown to fit each set of the hives with entrance holes internally lined with the fire-resistant materials and so hidden and covered from fire

Results
The fire-resistant material offers much protection to the bee against any emergence fires hence investment is protected however precautions are taken with respect to fire belt formation and education the herders and farmers who set fir during the dry season to clear agricultural land