

BOOSTING GENETIC IMPROVEMENT



Testing Assisted Reproductive Technologies in dairy goats and maternal sheep

50%

Laparoscopic artificial insemination (LAI) was used to split the frozen thawed semen from superior genetic of buck to reduce cost of semen 50% for genetic improvement in dairy goats



ONE KID PER LAI'ED DOE WAS OBTAINED WITH HALF DOSE OF SUPERIOR FRENCH ALPINE BUCK FROZEN SEMEN

The Damascus goat, also known as Aleppo, Halep, Baladi, Damascene, Shami, or Chami, is a breed of goat with a unique head and mouth shape raised in Syria, Cyprus and Lebanon. It is generally used in milk production. The Damascus goat is a native breed of the Middle East, and it has been raised in big herds throughout the region.

Damascus breed raised in intensively managed dairy goat operation had 450 lt mil yield and 1,8 kidding rate. It was aimed to increase milk yield without detrimental effect on milk fat and protein content. French Alpine superior buck frozen semen with 1200 lt milk yield was used in LAI program by splitting frozen semen into two doses and breed two does for reducing cost of semen for establishing acceptable pregnancy rates. An average 70% of pregnancy rate was achieved.



LAI increased success of pregnancy and decreased cost of semen

DIFFERENT ESTRUS SYNCHRONIZATION (ES) PROTOCOLS WERE TESTED IN DIFFERENT MONTHS OF BREEDING SEASON

LAI VERSUS CERVICAL AI

Generally, laparoscopic artificial insemination (LAI) provides a higher success rate than of cervical insemination in goats. However, pregnancy rates with half dose of semen after LAI in goats remains unknown, particularly when frozen-thawed semen is used.

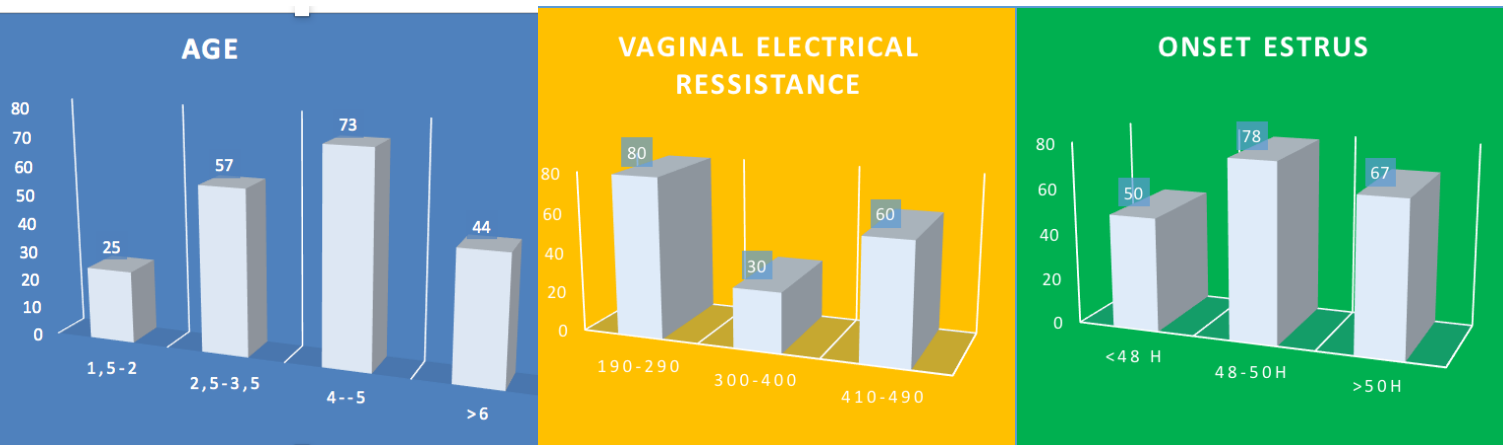
We tested factors such as ES protocols, age, time to onset estrus, vaginal electric resistance at the time of AI which were known to effect pregnancy rates.



ESTRUS RATES WERE SIMILAR FOR 3 DIFFERENT ESTRUS SYNCHRONIZATION PROTOCOLS

PREGNANCY TO KIDDING

Artificial insemination practitioners not only inseminate the farmers' does, but they should also train the farmers to take care for their does' on general health (water supplementation, feeding for proper nutrition, housing and management, disease prevention, and goat breed selection).

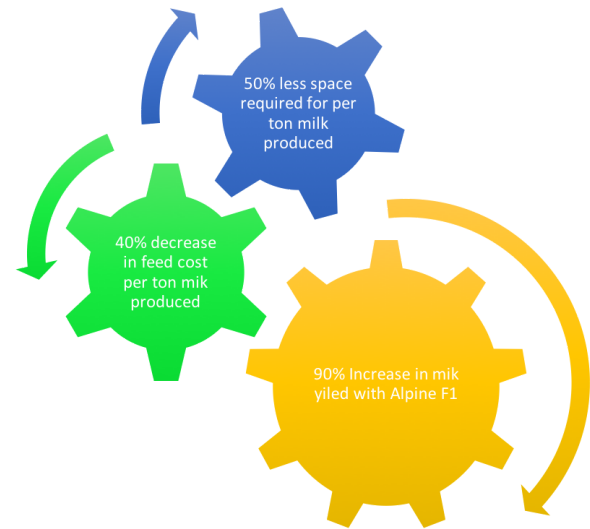


**HIGHER PREGNANCY RATES WERE ACHIEVED WITH;
DOES AGED BETWEEN 4-5 YEARS OLD,
VAGINAL ELECTRICAL RESISTANCE BETWEEN 190-290 Ω ,
DOES WITH ONSET ESTRUS 48-50H AFTER ESTRUS TREATMENT**

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REASONS THE DAIRY GOAT PRODUCER MAY CONSIDER USING AI INCLUDE THE FOLLOWING;

- Greatest advantage of LAI is the ability to maximize superior sires for genetic improvement.
- Importantly LAI also helps ensure that accurate breeding records can be kept.
- Less animal is required for targeted milk production.
- Less feed cost required for high milk yield.
- More milk produced per sq.m with goats produce more milk



MULTI FACTORS INCREASE FARM PROFITABILITY

FARM EXPERIMENT

AI should be given partial credit for the dramatic change in reducing the number of does while increasing milk production.



KURUÇESME
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INNOVATION TO ENHANCE FARM SUSTAINABILITY

Strategic manipulation and enhancement of herd genetics by employing various reproductive technologies provide a powerful tool for the modern livestock industry to respond to continually increasing demands for improved productivity and quality.

Therefore, a vast majority of livestock breeding programs are structured primarily to optimize genetic progress, which directly translates into long-term economic profitability.



1

Eliminate or reduce the cost of maintaining bucks.

2

Increase the rate of genetic improvement.

3

Increase the number of does to which a buck could be bred.

4

Breed several does the same day through use of AI and estrous synchronization.

SUCCESSFULLY USING ARTIFICIAL INSEMINATION (AI) IS ONE OF THE GREATEST TOOL FOR GENETIC IMPROVEMENT&SUSTAINABILITY&PROFITABILITY

THANKS:



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 679302.

