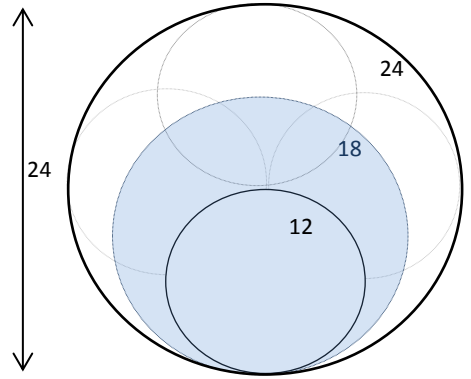
Fiber Density VS Micron Size

Square Micron of Circle							
Area in microns	153.9	201.06	254.47	314.16	380.13	452.39	530.93

(Microns)

Diameter	12	14	16	18	20	22	24	26
12		136%	178%	225%	278%	336%	400%	469%
14	73%		131%	165%	204%	247%	294%	345%
16	56%	77%		127%	156%	189%	225%	264%
18	44%	60%	79%		123%	149%	178%	209%
20	36%	49%	64%	81%		121%	144%	169%
22	30%	40%	53%	67%	83%		119%	140%
24	25%	34%	44%	56%	69%	84%		117%
26	21%	29%	38%	48%	59%	72%	85%	

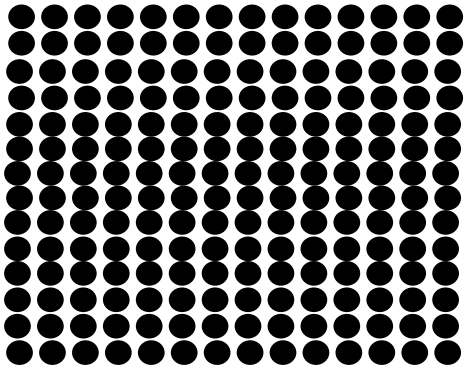


(Assumption: staple length is equal)
Which sample, A,B or C would feel the most dense/volume?
Which sample, A,B or C would feel the least dense/volume?
Which sample would revel the most skin when fleece is parted open?
If your breeding program goal was to obtain fineness and greater density,
Which would be your first choice? Which would be your second choice?
Which example would weigh the most?
Which would produce the most yarn?
How would "curve" affect yardage?

AFD 18 VS 24 MICRON
18m = area 254 sqm
24m = area 452 sqm
18 micron is close to 1/2 (56%) of the area/density/weight or 24 micron will feel almost twice as dense/heavy
12 micron = 1/4 of volume/weight of 24 micron
24 micron is 400% more volume/heavy

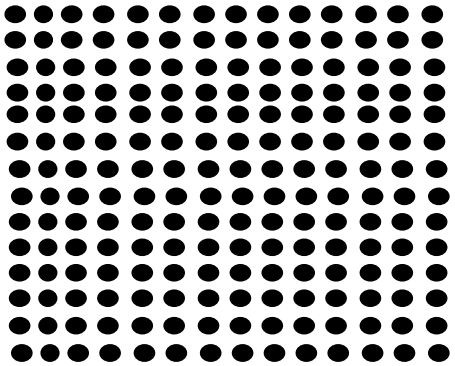
A

196 fibers of 24 micron fibers
in "X" size area 88,668 sqm



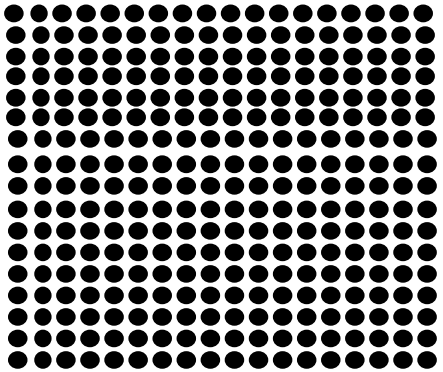
B

196 fibers of 18 micron
in same size area 49,784 sqm
(will be 56% less dense



C

348 fibers of 18 micron
in same size area 88,555 sqm



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