WHAT IS CLAIMED IS:

1. A pesticidal mixture comprising moxidectin and one or more pyrethroids selected from the group consisting of permethrin and pyrethrum, wherein the ratio of the one or more pyrethroids to moxidectin is from 10:1 to 1:10.

2. The mixture of claim 1, wherein the ratio of the one or more pyrethroids to moxidectin is from 10:1 to 1.1:1.

3. The mixture of claim 1, wherein the ratio of the one or more pyrethroids to moxidectin is from 3.3:1 to 1:1.

4. The mixture of claim 1, wherein the ratio of the one or more pyrethroids to moxidectin is from 3.3:1 to 1.1:1.

5. The mixture of claim 1, wherein the ratio of the one or more pyrethroids to moxidectin is from 3.3:1 to 1.7:1.

6. A method of controlling a mosquito comprising applying sequentially or concurrently an effective amount of a mixture of moxidectin and one or more pyrethroids selected from the group consisting of permethrin and pyrethrum to the mosquito or an area in need of mosquito control. wherein the ratio of the one or more pyrethroids to moxidectin is from 10:1 to 1:10 and wherein the area in need of mosquito control does not include an animal or human body.

7. The method of claim 6, wherein the ratio of the one or more pyrethroids to moxidectin is from 10:1 to 1.1:1.

8. The method of claim 6, wherein the ratio of the one or more pyrethroids to moxidectin is from 3.3:1 to 1:1.

9. The method of claim 6, wherein the ratio of the one or more pyrethroids to moxidectin is from 3.3:1 to 1.1:1.

10. The method of claim 6, wherein the ratio of the one or more pyrethroids to moxidectin is from 3.3:1 to 1.7:1.

11. The method of claim 6, wherein the mosquito is of a genera selected from the group consisting of *Culex*, *Aedes, Anopheles* and a combination thereof.

12. The method of claim 6, wherein the mosquito is selected from the group consisting of *Aedes aegypti, Culex quinquefasciatus, Anopheles quadrimaculatus* and a combination thereof.

13. The method of claim 6, wherein the mosquito is pyrethroid-resistant.

14. The method of claim 6, wherein the area in need of pest control is a bed net, a tent or an item of clothing.

15. The method of claim 6, wherein the control is residual.

16. The method of claim 6, wherein the mixture is applied by a technique selected from spraying, brushing and soaking.