Si@lleva: a multi-specie software to optimise in farm data collection, extension service and herd management

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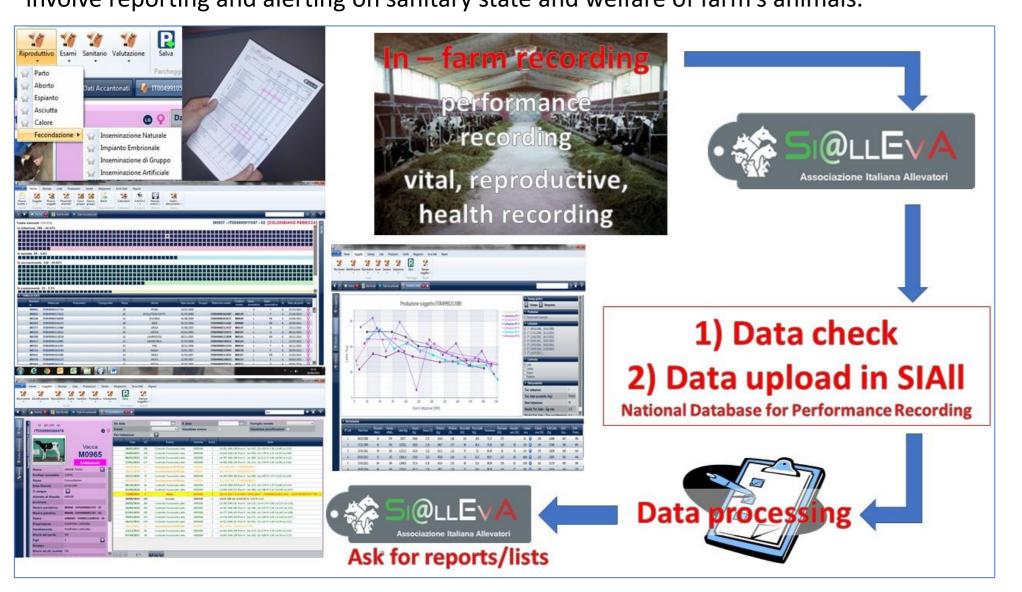
| What is Si@llEvA

Livestock farm management is a complex reality and the need of a farm manager is to keep under control all possible criticalities: this means to identify, understand and manage complex problems, from production to health to economy, and even face social and ethical challenges, such as animal welfare. To accomplish this duty, farm manager needs to analyse the production process through accurate information both simple and aggregate on the different processes going on in his activity. This means identifying process anomalies, acting corrective actions, rechecking the production process in order to reach an optimization. After this, a continuous monitoring of the process is needed in order to keep optimal state, as in a PDCA cycle. Si@llEvA is a software that helps the farmer to have a management as close as possible to a quality control, being set up in this way. Si@llEvA is a farm-level software directly linked to SiAll (Italian Breeders' Association central database for Performance Recording data) and to Government central database (Health Ministry, Italian authority for animal drugs). It is a multi-species software, dealing with dairy cattle, dairy goats and buffaloes, that allows Performance Recording data upload to central database, produces lists and extension service reports and gives other additional services for farm management. The software manages Performance Recording data and all other corporate events within a single database.

| How it works

In-farm data collection. Si@llEvA allows different kind of users to upload data. Each user, according to his level of authorization, can upload Performance Recording data (only official technicians), vital and reproductive daily events (both farmer and other technician), health data (both farmer and veterinarian). Uploaded data validation is immediate, complies with a set of constrains that allow the creation of a valid national central data base. All users read and write on the same data base and data is subject to the same validation process. This means that all users are sure to browse the most up-to-date situation of the desired information. From a Performance Recording point of view, this is an excellent way to guarantee a farmer check on each input data avoiding possible mistakes/loss of information.

Extension service. Farm management is based on properly used information. Si@llEvA produces different reports, like Official Performance Recording forms and lactation certificate, reproductive performance reports, health risks reports (SCC or BHB analysis), herd zootechnical parameters report, Animal Welfare report. Despite all these reports, often breeders do not use them, maybe because they ignore their existence or they need advisors to read reports with them in order to extract basic figures. In other cases, the breeders may have too many reports and information on different sheets and this makes it difficult to quickly extract useful data. In order to put into practice the PDCA cycle and implement a quality control process, Si@llEvA focused on a Herd Summary Report, which is the main tool for extension service: it gives few and useful data, and can give a picture of the herd situation at a glance, highlighting farm performance problems. The Herd Summary is based on Performance Recording data, it is calculated by breed/species and supplies information at herd level of productive, reproductive and health performances. The report gives aggregate information for 7 issues: genetics, herd, production, milk contents, health, reproduction and other issues (culling, replacement, dry period length etc.). The report's most important news is the opportunity to make a benchmark with all other farms (between farms comparison) and a comparison with its own past performances (within farm comparison). The benchmark can be properly performed using Performance Recording data as data processing has made through central national database, gathered by a widespread and homogeneous measurement method over all the country. It is the control and improvement tool used to fix goals, to spot inefficiencies and to check if any applied corrective action has been effective. Benchmarks are taken on key zootechnical parameters with homologous farms in the same province, region or the whole nation.

Herd management. Vets lists, Alarm lists, Management lists are the base for farmer's daily routine's management, they are issued with the aim to make them easy. From insemination and pregnancy diagnoses information and other events or milk constituents levels, lists are created also to identify cows eligible to veterinarian checks as they reveal health, productive and reproductive risk factors. Si@llEvA allows connection with external government database to comply with sanitary treatments traceability and animal identification and movements registration. Other services provided by Si@lleva involve the check of pure blood composition for crossbreeding management, the possibility to directly connect performance data with electronic milk meters and to manage semen stockage. Other important services involve reporting and alerting on sanitary state and welfare of farm's animals.

Herd Summary

| Conclusion

Si@llEvA is a software that allows the farmer and all the technical external figures involved in farm management to perform all the actions needed to identify critical problems, solve them and recheck the situation in a quality control process. All the tools Si@llEvA can provide allow a global and continuous monitoring of all the processes and even help the manager to make bureaucratic accomplishment regarding animal health, traceability and welfare easier and facilitates data flow for Performance Recording. Data quality and accuracy is guaranteed by having all records in a unique Performance Recording database (SiAll) and by the direct connections to Government databases.